IRON MANUFACTURES

OF THE

NEW YORK

WIRE RAILING Co.

1857.

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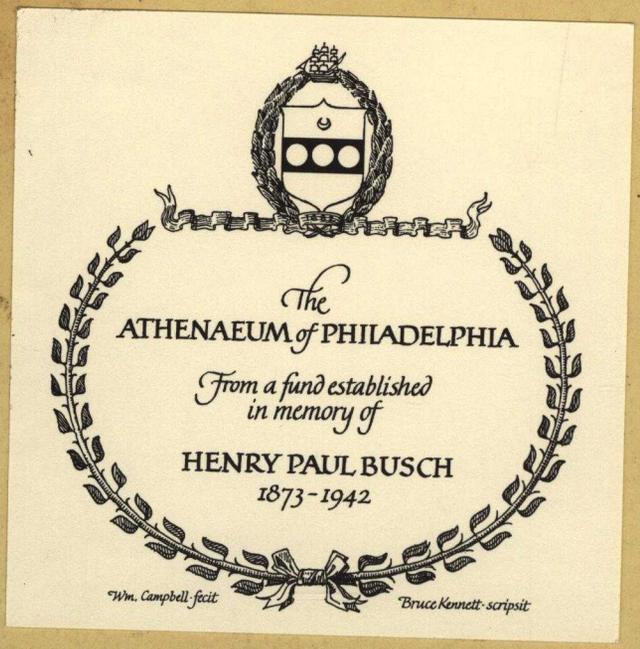
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From a fund established
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INTERIOR VIEW OF THE WAREHOUSE OF THE NEW YORK WIRE RAILING COMPANY, 312 BROADWAY, NEW YORK.

A

NEW PHASE

IN THE

IRON MANUFACTURE.

Important Inventions and Improvements;

HISTORICAL SKETCH OF IRON;

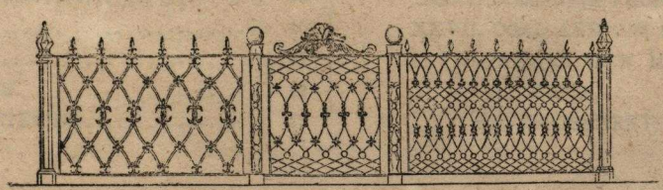
DESCRIPTIVE CATALOGUE

OF THE

MANUFACTURES OF THE

NEW YORK WIRE RAILING COMPANY.

JOHN B. WICKERSHAM, Superintendent.



(Specimens of three Styles of Wire Railings.)

WAREHOUSE, **No. 312 BROADWAY**, NEW YORK.

1857.

Entered according to Act of Congress, in the year 1857, by

J. B. WICKERSHAM,

in the Clerk's Office of the District Court, for the Southern District of New York.

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NEW YORK WIRE RAILING COMPANY.

OFFICERS:

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JOHN B. WICKERSHAM, Superintendent.
WILLIAM D. COMES, Secretary.

DIRECTORS:

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WILLIAM D. COMES,
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INDEX:

		PAGE.
Chapter I.	HISTORICAL SKETCH OF THE IRON BUSINESS	3
II.	MODERN APPLICATIONS OF IRON—Sizes of Wire	5
III.	WIRE HURDLE FENCE	7
IV.	WIRE RAILING	7
V.	WIRE RURAL FENCE	16
VI.	POSTS	16
VII.	COMPOSITE RAILING—COMPOSITE RURAL FENCE.	20
VIII.	GATES	28
IX.	VERANDAHS	35
X.	SUMMER-HOUSES	38
XI.	WINDOW-GUARDS	39
XII.	BALCONIES	40
XIII.	AREAS	41
XIV.	CEMETERY ENCLOSURES	42
XV.	GATEHEADS FOR CEMETERIES	43
Chap. XVI	BULWARKS FOR STEAMERS	43
XVII.	HEATER-GUARDS, for DWELLINGS, STORES, &c.	44
XVIII.	CAST AND WROUGHT-IRON RAILING	45
XIX.	RAILROAD AND FARM FENCES	49
XX.	THE WIRE FENCE	53
XXI.	IMPROVED WIRE-NETTING FENCE	56
XXII.	IRON TREE-BOXES	59
XXIII.	IRON BEDSTEADS	59
XXIV.	WIRE FURNITURE	67
XXV.	CAST-IRON FURNITURE	68
XXVI.	CAST-IRON FRONTS—LINTELS AND CAPITALS.	72
XXVII.	COAL AND ORE SCREENS	80
XXVIII.	WHERE OUR MANUFACTURES HAVE BEEN USED	80
	ADVERTISEMENTS	82

NEW YORK WIRE RAILING COMPANY.

THE IRON MANUFACTURE.

CHAPTER I.

HISTORICAL SKETCH OF THE IRON BUSINESS.

SINCE the earliest ages, Iron has been in extensive use. The barbarians used it in their feeble way. Their implements were made from it. The ancients prized it; nor was it till the days of Pliny that it ceased to be regarded as a choice gift. Its use has gradually become more extended, as the wants of man have increased—so true is it that "necessity is the mother of invention;" and, as civilization has advanced, the means and appliances of a better mode of life have been improved, until in our day there are manifold applications of materials which were once wholly unknown and even unthought of.

The history of the Iron Business of the world forms an instructive chapter in the record of mankind's progress from a condition of darkness to a state of high civilization; nor is there a truer method of testing the rate of this progression than an observation of the growth of the discovering and inventive elements. We find, upon examination of the record, that so rapid has been the development of the Iron Trade, that, so recently as the year 1740—one hundred and seventeen years ago—the total production of Iron in England amounted only to seventeen thousand tons. The returns of 1855, for that country, however, show a total production of more than *three and a half millions of tons.* This fact is significant; fully justifying the assertion of a recent writer, that "the consumption of Iron is a social barometer, by which to estimate the relative height of Civilization among nations; for, considering in what practical Civilization consists, measuring by the actual comforts and conveniences with which social life is surrounded, what philosophic traveler or student will not classify the nations of the world precisely in accordance with the tabulated returns of their Iron manufacture: England first, United States second, Belgium third, France fourth, Germany fifth, Switzerland and Sweden about on a par, Austria next, then Russia, Spain, and Turkey, and the great outlying regions of barbarism?"

The present annual production of Iron in the world is, in round numbers, SEVEN MILLIONS OF TONS. The following table, prepared from official sources, embodies some very interesting information in this regard:

England produced in	1855,	Tons	3,585,906
United States "	1855,	"	1,000,000
France "	1845,	"	650,000
Belgium "	1855,	"	255,000
Russia "	1849 to 1851,	"	300,000
Sweden "	1850 to 1852,	"	157,000
Norway "	1855,	"	22,500
Austria "	1847,	"	200,000
Prussia produced, per last official report,		"	400,000
Other parts of Germany "		"	200,000
Elba and Italy "		"	72,000
Spain "		"	27,000
Denmark and other parts of Europe, per last official report,		"	20,000
Total,		Tons	6,889,906

The growth of American production has been about as follows:—

In 1810,	Tons	54,000	In 1840, Tons 315,000
In 1820,	"	20,000	In 1846, " 765,000
In 1828,	"	130,000	In 1847, " 800,000
In 1829,	"	142,000	In 1855, " 1,000,000
In 1830,	"	165,000	

In 1782, the total quantity of hammered iron exported from England was 427 tons. In 1854, the total quantity of pig iron exported was 293,000 tons; of puddled and rolled iron, 883,000 tons. There are now in England 599 furnaces, with an average yield of each of 6,000 tons per annum. Two hundred and thirty thousand men and two thousand steam engines are constantly employed in the manufacture. The value of the gross product is equal to $125,000,000.

In the United States, ten years ago, no iron rails were made. Two years ago, 135,000 tons were manufactured. The product of the Lehigh iron region in 1855, was 140,000 tons. The valley of the Schuylkill produces annually 100,000 tons. The Susquehanna valley produces 200,000 tons; the valley of the Potomac 60,000; and the southern states 40,000. Western Pennsylvania, Ohio, Tennessee, Kentucky, and Missouri produce 300,000 tons per annum. The aggregate valuation of our Iron manufactures, by the return of 1855, was $50,000,000.

CHAPTER II.

MODERN APPLICATIONS OF IRON.

MUCH of the rapid growth observable in the Iron Manufacture of the United States within the last few years, is to be ascribed to the remarkable applications of this material, which are due to the practical talent of the country. Among no other people is there so great a rivalry between inventors in the production of the utmost variety of articles fitted for use in our houses, our fields, our gardens, stores, counting-rooms and summer resorts. And it is undeniable that the consumption of the raw material, to effect the changes that these improvements are introducing, is producing its natural result in hastening the development of this very important and rapidly increasing branch of our Commerce.

A peculiar feature of the latest improvements in Iron work which has been introduced to the notice of the public, is the combination of wrought and cast iron in the manufacture of articles suitable for outdoor and indoor use. In the course of the following pages we illustrate many of these applications. Not only fences, park enclosures, verandahs and other exterior appliances of Iron are made available, but furniture, bedsteads, household apparatus and ornamental articles are manufactured in the highest perfection.

It was once said by the *British Quarterly* that a bar of Iron of the original value of five dollars was increased by manufacture till it became worth a quarter of a million; and the assertion was proved thus: A bar of iron, worth $5, worked into horse shoes, is worth $10 50; in penknife blades, $3,285; in shirt buttons, $29,480; in balance springs for watches, $250,000. So with these new applications of Iron in these days:—every new contrivance only enhances the riches of the country and creates a larger demand.

THE TENACITY OF IRON.

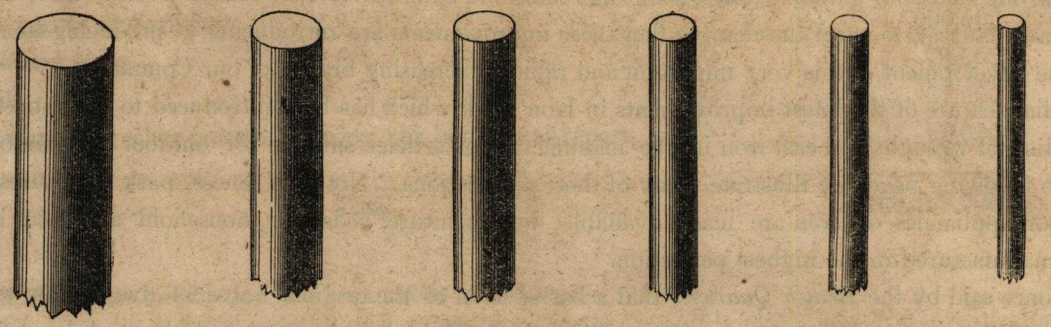
We give below a tabular exhibit of the capacity of resistance of Wire under various degrees of strain. It will be interesting to many readers:

WIRE GUAGE.	DIAMETER.	WEIGHT OF 100 YARDS.	LENGTH OF 1 BUNDLE.	LENGTH OF 1 CWT.	DIRECT STRAIN.		WIRE GUAGE.
					AREA OF SECTION.	BREAKING WEIGHT.	
	INCHES.		YARDS.	YARDS.	SQ. INCHES.		
00	0·380	110·32	57	102	0·130	9040	00
0	0·340	88·31	71	127	0·091	7280	0
1	0·300	68·75	91	162	0·071	5650	1
2	0·280	59·90	105	187	0·062	4930	2
3	0·250	51·65	121	215	0·053	4250	3
4	0·240	44·00	163	255	0·045	3620	4
5	0·220	37·00	170	303	0·038	3040	5
6	0·200	30·56	203	361	0·031	2510	6
7	0·185	26·15	239	428	0·027	2220	7
8	0·170	22·10	286	509	0·023	1840	8
9	0·155	18·36	342	609	0.020	1560	9
10	0·140	14·97	420	747	0.016	1280	10
11	0·125	11·95	529	939	0·013	1000	11

Different Sizes of Wire.

The subjoined Illustration exhibits all the sizes of Wire which are usually employed in the manufacture of the articles described in the succeeding Chapters.

It will be observed, on reference to the numbered illustrations, under the divisions of this publication, that the prices of our work are guaged according to the size of Wire required. Purchasers will find their convenience consulted by turning to the corresponding numbers in the cut we give below; by means of which they obtain an accurate view of the different descriptions of Wire—all of which are given *of the natural size.*



1-2 in. | 3-8 in. or **No. 00.** | 5-16 in. or **No. 0.** | 1-4 in. or **No. 3.** | 3-16 in. or **No. 6.** | 1-8 in. or **No. 11.**

Note.—Attention is called to the following

EXTRA CHARGES.

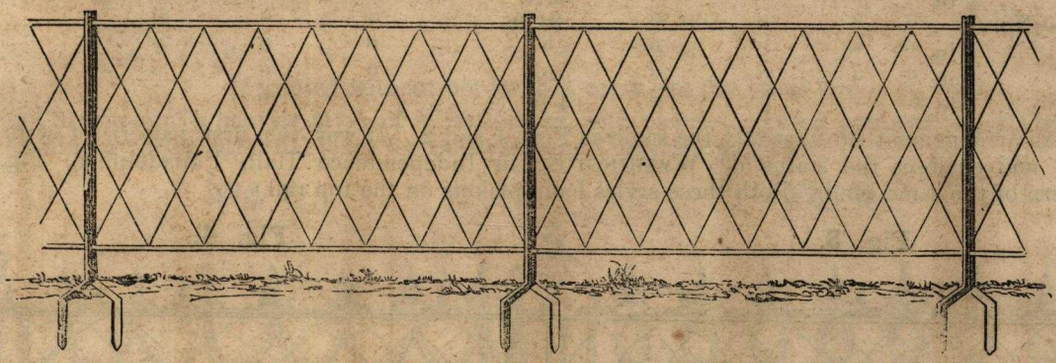
1. For Office Railings, which may be selected from any of the following designs, twenty-five cents extra per foot is charged for *putting up*, and twenty-five cents per foot extra for *bronzing.*
2. Price for putting up work is always additional on the prices following.
3. Cast iron and wrought iron posts are also an additional charge.
4. Parties desiring their goods boxed are charged in addition therefor.
5. Gates are charged in addition.
6. One coat of paint is included in the prices named.

Workmen are sent to any part of the United States.

CHAPTER III.

WIRE HURDLE FENCE.

THE following engraving exhibits the *Wire Hurdle Fence*, of No. 1, or diamond pattern, intended for Gardens and Lawns. The manner of securing the panels, by inserting the prongs of the iron posts into the ground, is also shown. This method of fastening the posts is all that is required in a movable fence:



PRICES PER LINEAL FOOT.

Fig. 1,	9 in.	Mesh,	No. 6	Wire,	Hurdle,	3 ft.	between	bars,	when up	3 ft.	6 in.	. . . . .	$0 65
"	6 in.	"	" 6	"	"	"	"	"	"	"	"	. . . . .	85
"	6 in.	"	" 8	"	"	"	"	"	"	"	"	. . . . .	75
"	9 in.	"	" ¼ in.	"	"	"	"	"	"	"	"	. . . . .	75
"	6 in.	"	" ¼ in.	"	"	"	"	"	"	"	"	. . . . .	1 00

CHAPTER IV.

WIRE RAILING.

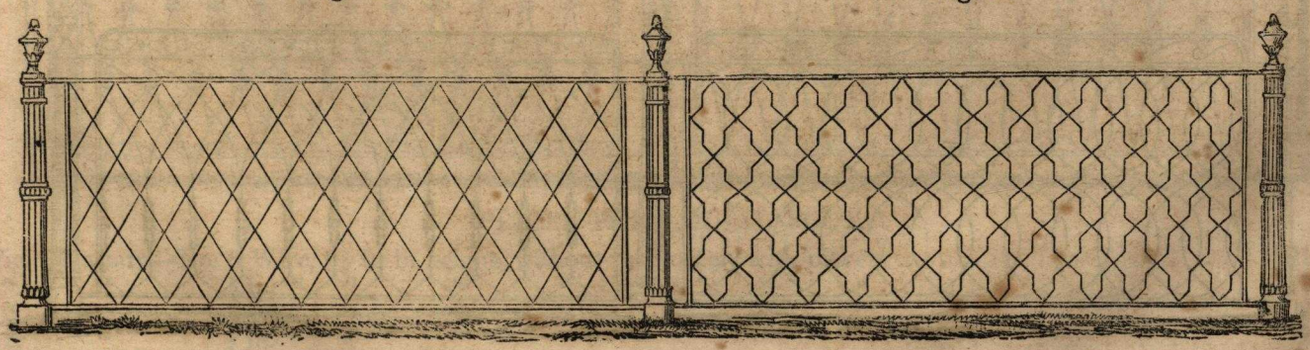
FOR CEMETERIES, DOORYARDS, WINDOW GUARDS, &c.

(*Patented March 6th*, 1847, *and January 13th*, 1849.)

Fig. 1 in the following illustration, shows a modification of the Wire Hurdle Fence exhibited above,—the difference consisting in the manner of fastening the fence to its posts, and in securing the posts in the ground. The style shown below, is attached to cast-iron posts, which are secured to stone blocks in the ground.

Fig. 2 is the O G form of fence, suitable for Cemeteries, Dooryards, Window Guards, and Office Railings, and is one of the most general patterns employed for these purposes. This pattern is a very desirable one, and invariably

Fig. 1. **Fig. 2.**



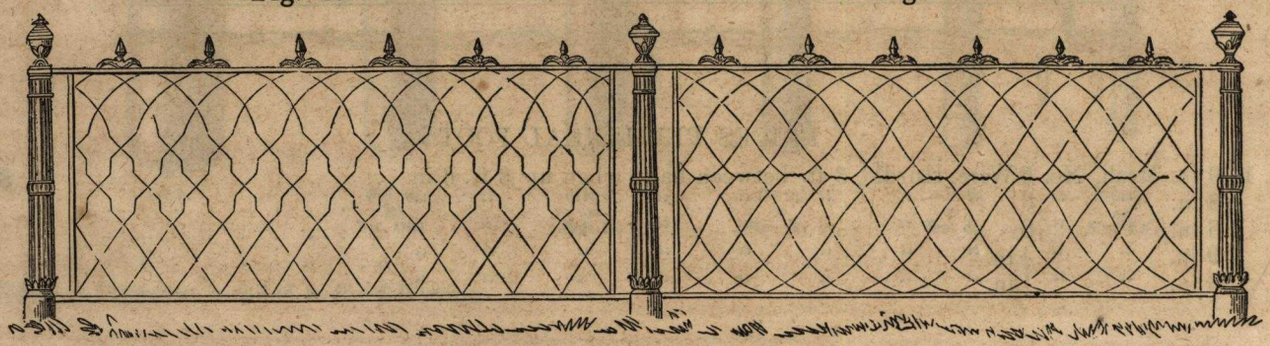
gives satisfaction. When put up, it is extremely substantial, yet light and airy. This style of railing is suitable for Office Enclosures, Dooryards, and Window Guards.

PRICES PER LINEAL FOOT.

Fig. 1 Pattern—No. 6	Wire,	$4\frac{1}{2}$ in.	Mesh,	with pickets,	3 ft. 4 in.	from ground	to top	of picket	. . . . .	$1 00
" "	$\frac{1}{4}$ in.	"	"	"	"	"	"	"	. . . . .	1 20
" "	$\frac{5}{16}$ in.	"	"	"	"	"	"	"	. . . . .	1 55
" "	$\frac{3}{8}$ in.	"	"	"	4 ft.	"	"	"	. . . . .	2 00
Fig. 2 Pattern—No. 6		"	"	"	$3\frac{1}{3}$ ft.	"	"	"	. . . . .	1 00
" "	$\frac{1}{4}$ in.	"	"	"	"	"	"	"	. . . . .	1 25
" "	$\frac{5}{16}$ in.	"	"	"	"	"	"	"	. . . . .	1 50
" "	$\frac{3}{8}$ in.	"	"	"	4 ft.	"	"	"	. . . . .	2 00

Fig. 3 is an arrangement substantially the same as Figs. 1 and 2. It was the first pattern of wire railing ever manufactured, and encloses the statue of WASHINGTON, in Independence Hall, Philadelphia. Fig. 4 is another beautiful pattern of the same kind. Both these styles have pickets on the top rail:

Fig. 3. **Fig. 4.**

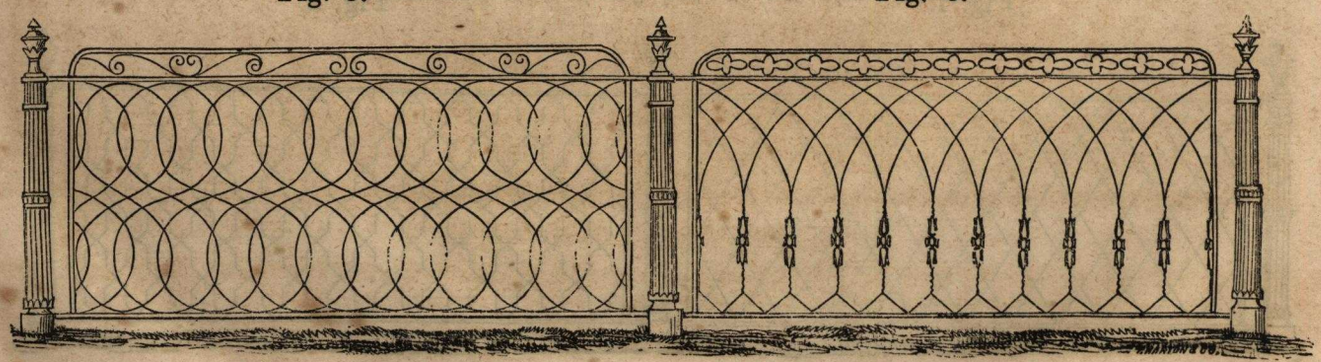


PRICES PER LINEAL FOOT.

Fig. 3 Pattern—No. 6	Wire,	$3\frac{1}{3}$ ft.	high,	with pickets	. . . . .	$1 00
" "	$\frac{1}{4}$ in.	"	"	"	. . . . .	1 25
" "	$\frac{5}{16}$ in.	"	"	"	. . . . .	1 50
" "	$\frac{3}{8}$ in.	"	4 ft.	"	. . . . .	2 00
Fig. 4 Pattern—No. 6		"	$3\frac{1}{3}$ ft.	"	. . . . .	1 $12\frac{1}{2}$
" "	$\frac{1}{4}$ in.	"	"	"	. . . . .	1 $37\frac{1}{2}$
" "	$\frac{5}{16}$ in.	"	"	"	. . . . .	1 $62\frac{1}{2}$

Figs. 5 and 6 show a railing with border, without pickets. These patterns may be made with pickets, if desired. Fig. 5 is the pattern which encloses the galleries of the Houses of Refuge in Philadelphia and Baltimore:

Fig. 5. **Fig. 6.**



PRICES PER LINEAL FOOT.

Fig. 5 Pattern—No. 6 Wire, 3½ ft. high, with pickets, without the border	$1 00
" " ¼ in. " " " " " "	1 25
" " 5/16 in. " " " " " "	1 50
" " ⅜ in. " " " " " "	2 00

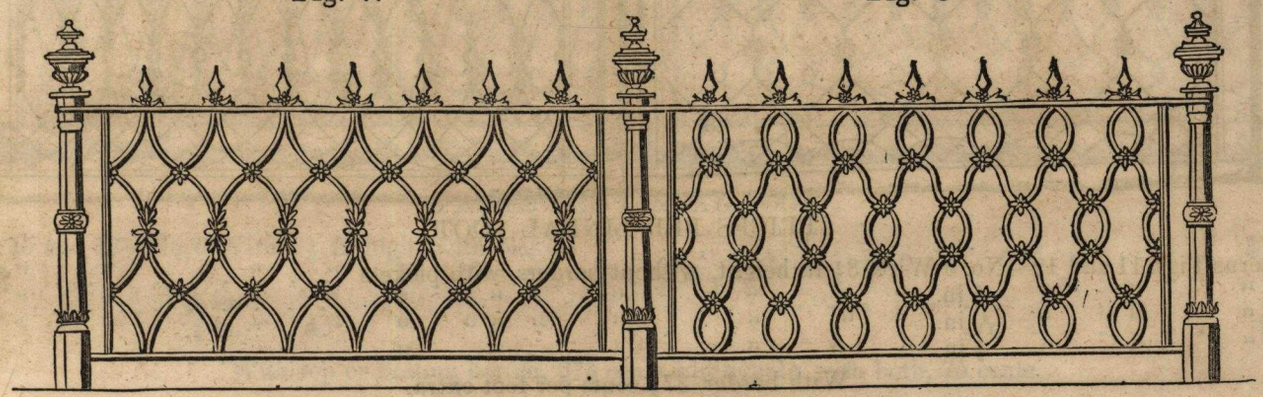
With border, 37½ cents per lineal foot extra.

Fig. 6 Pattern—No. 6 Wire, 3½ ft. in height with pickets, with the border	$1 62½
" " 4 " " " " " "	1 94
" " 5/16 in. " " " " " "	2 12½
" " ⅜ in. " " " " " "	2 75

If wanted without border, 37½ cents less per lineal foot.

Figs. 7 and 8 represent a heavier style of Wire Railing, with pickets. These patterns are made of rods of the larger sizes, forming a very substantial fence for Dooryard and Cemetery purposes:

Fig. 7. **Fig. 8.**

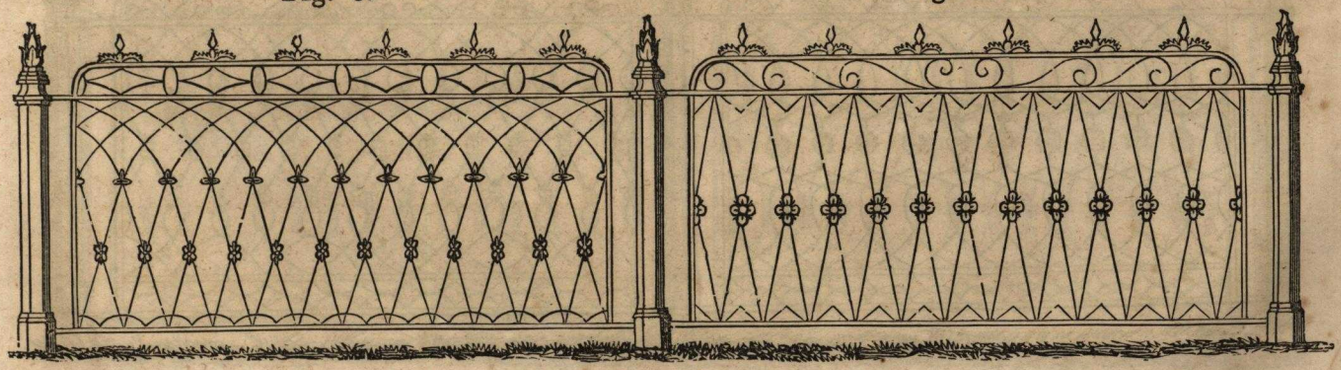


PRICES PER LINEAL FOOT.

Fig. 7, ¼ in. Wire, 3½ ft. high, with pickets	$1 50
" ⅜ in. " " " "	1 75
Fig. 8, ⅜ in. " " " "	2 00

Figs. 9 and 10 are styles with border and pickets:

Fig. 9. **Fig. 10.**



PRICES PER LINEAL FOOT.

Fig. 9 Pattern—No. 6 Wire, 3½ ft. in height, without the border, with pickets	$1 50
" " ¼ in. " " " " " "	1 75
" " 5/16 in. " " " " " "	2 00
" " ⅜ in. " 4 " " " " "	2 75

Fig. 10 Pattern—No. 6 Wire, $3\frac{1}{3}$ ft. in height, without the border, with pickets, ... $1 50
" " $\frac{1}{4}$ in. " " " " " " " 1 75
" " $\frac{5}{16}$ in. " " " " " " " 2 00
" " $\frac{3}{8}$ in. " " " " " " " 9 in. mesh 1 50

With border, $37\frac{1}{2}$ cents per lineal foot additional. The extra price of these and following numbers, is owing to one or more additional row of rosettes, each row increasing the price 25 cents per foot.

Figs. 11 and 12 also exhibit styles with border and pickets. Fig. 12 is a pattern which is very frequently selected for its neatness. It may be made without border and with pickets, for Dooryards and Cemetery fences:

Fig. 11.

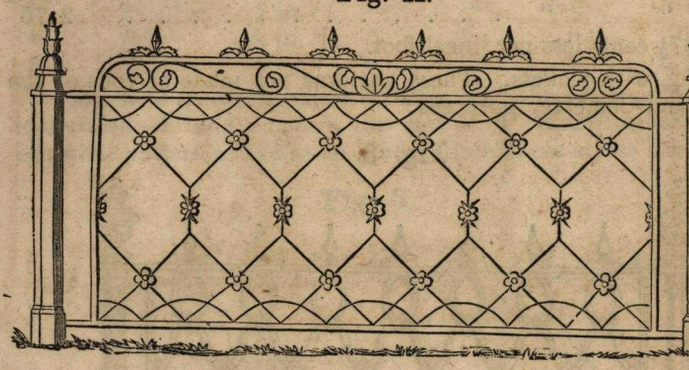
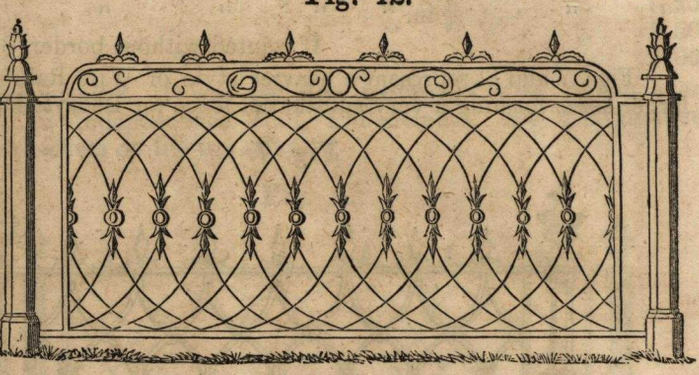


Fig. 12.



PRICES PER LINEAL FOOT.

Patterns Figs. 11 and 12—No. 6 Wire, $3\frac{1}{3}$ ft. height, without borders, with pickets $1 25
" " " $\frac{1}{4}$ in. " " " " " " 1 50
" " " $\frac{5}{16}$ in. " " " " " " 1 75
" " " $\frac{3}{8}$ in. " 4 ft. " " " " 2 25

With border, $37\frac{1}{2}$ cents per foot extra.

Figs. 13 and 14 are more elaborate designs, particularly adapted for Fences of extra height. Fig. 14 is especially suitable for Gates for main entrances, and may be made of rods three-eighths of an inch in diameter, rendering it sufficiently heavy and substantial for a good gate:

Fig. 13.

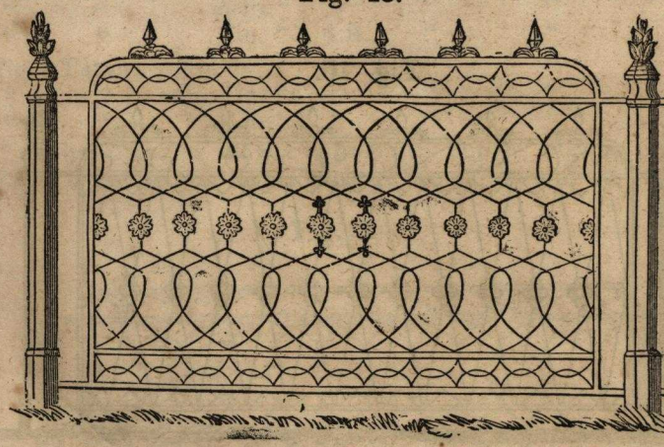
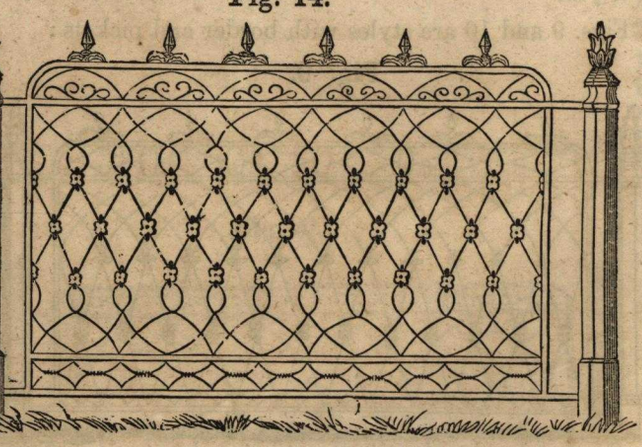


Fig. 14.

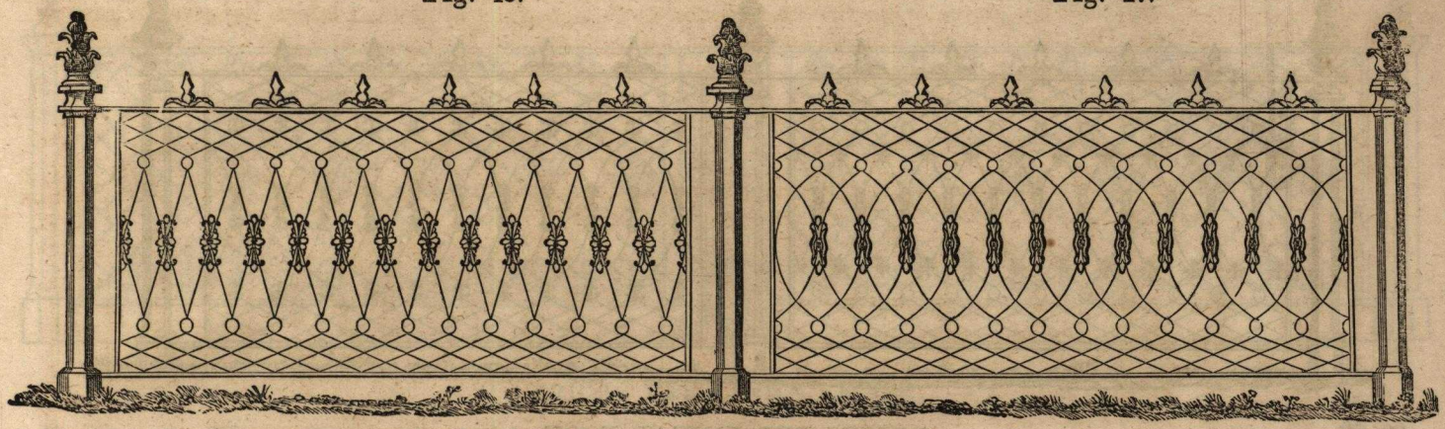


PRICES PER LINEAL FOOT.

Patterns Figs. 13 and 14—No. 6 Wire, $3\frac{2}{3}$ ft. in height, with borders and pickets $2 50
" " " 4 " " " " " 2 75
" " " $\frac{5}{16}$ in. " " " " " 3 00
" " " $\frac{3}{8}$ in. " 4 ft. 6 in. " " " 4 00

Figs. 15 and 17 show patterns of Wire Railing most generally popular. Fig. 17 is a style in the construction of which lighter wire can be used than in any other pattern made. It is generally employed for all purposes where Iron Railing is required, and may be found in use in all parts of the country, from Maine to Texas. This pattern encloses the Battery, in the city of Charleston, S. C.:

Fig. 15. **Fig. 17.**



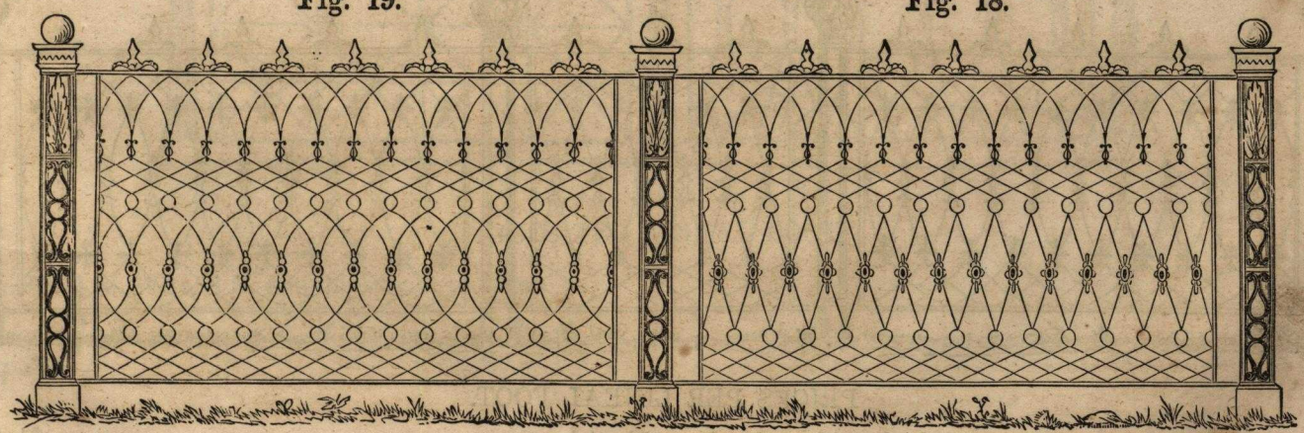
PRICES PER LINEAL FOOT.

Figs. 15 and 17—No. 6 Wire, 3⅓ ft. high, with pickets	$1 25
" " 4 " " " " " "	1 50
" " $\frac{5}{16}$ in. " " " " "	1 75
" " $\frac{3}{8}$ in. " 4 " " " "	2 25

With top or bottom border, 37½ cents additional; with both, 75 cents.

Figs. 18 and 19 are styles of Park Railing, of extra height. Fig. 19 is the pattern used for enclosing Forsyth Place, in the city of Savannah, and is also in use in several squares in the city of New York and other parts of the Union. The posts in these styles are of extra pattern. (See "Posts," chapter VI.)

Fig. 19. **Fig. 18.**

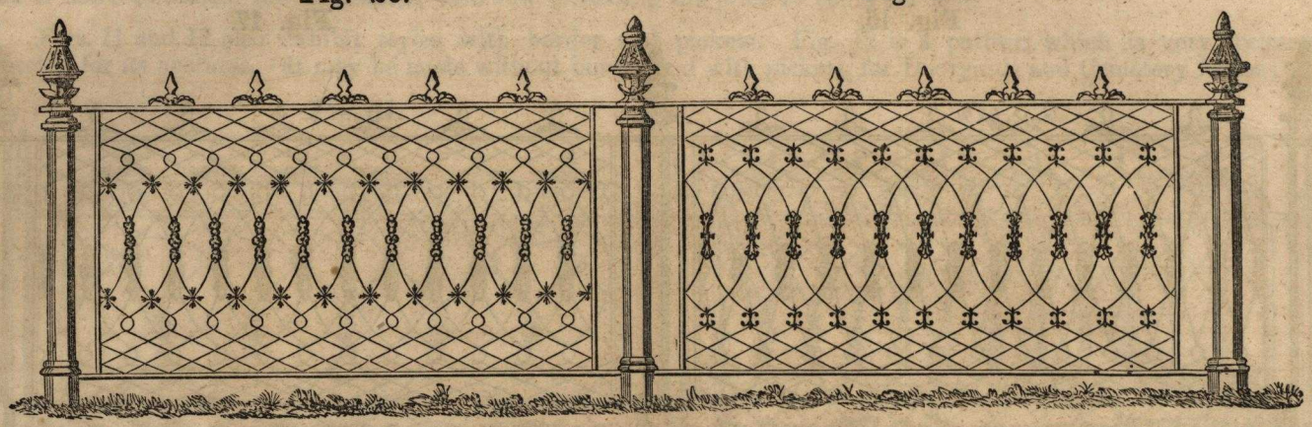


PRICES PER LINEAL FOOT.

Figs. 19 and 18, ¼ in. Wire, 4 ft. high, with pickets	$2 00
" " $\frac{5}{16}$ in. " " " "	2 25
" " $\frac{3}{8}$ in. " 5½ " " "	3 00

Figs. 20 and 21 are also patterns of Railing suitable for Parks, Dooryards and Cemetery plots. Fig. 20 is a style which has been selected for enclosing several Parks in various parts of the United States. It is used in Aiken Square, in the city of Charleston, and encloses Flynn's Church in the same city:

Fig. 20. **Fig. 21.**



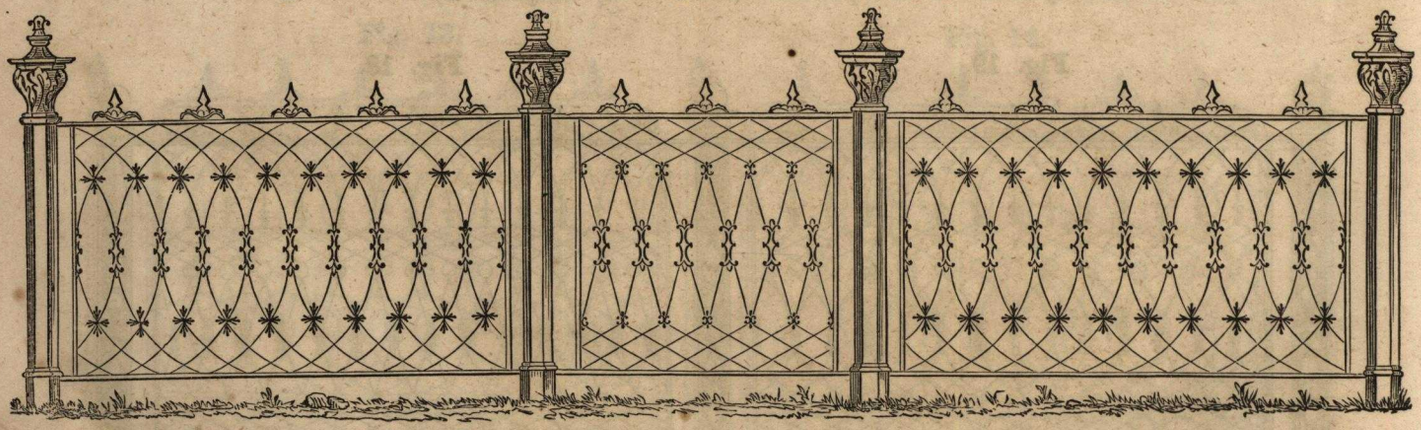
PRICES PER LINEAL FOOT.

Figs. 20 and 21—No. 6 Wire, $3\frac{1}{3}$ ft. high, without border, with pickets			$1 75
" " 4 " " " " " " "			2 00
" " $\frac{5}{16}$ in. " " " " " " "			2 50
" " $\frac{3}{8}$ in. " " " " " " "			2 75

With the centre row of Rosettes only, these patterns can be furnished at the same prices as Fig. 15. With border at top or bottom, $37\frac{1}{2}$ cents per foot additional; at both top and bottom, 75 cents.

Figs. 22 and 23 are very beautiful patterns,—fig. 23 being placed in the centre, in the illustration:

Fig. 22. **Fig. 23.** **Fig. 22.**



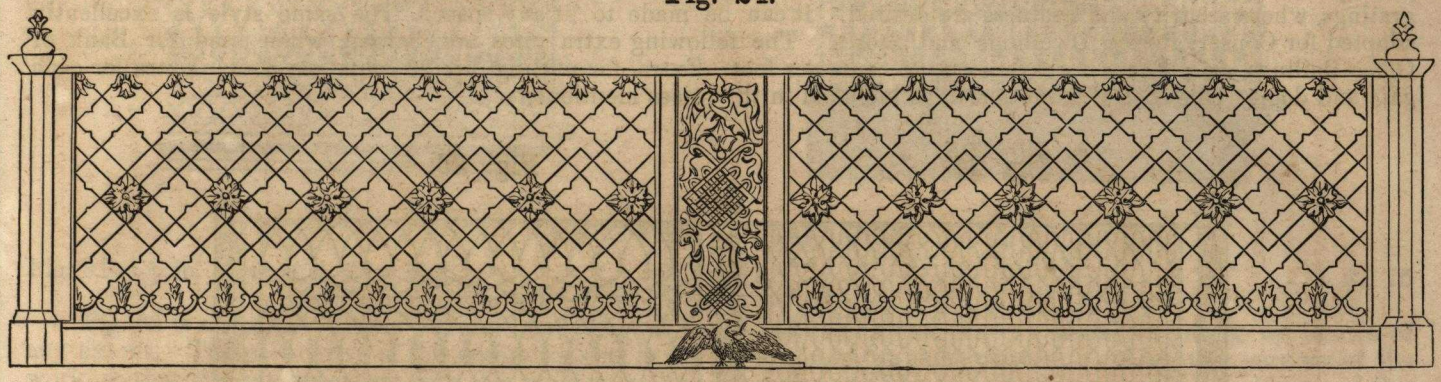
PRICES PER LINEAL FOOT.

Figs. 22 and 23—No. 6 Wire, $3\frac{1}{2}$ ft. high, without border, with pickets			$1 75
" " 4 " " " " " " "			2 00
" " 2 " " " " " " "			2 25
" " $\frac{3}{8}$ in. " 4 ft. " " " " "			2 75

Additional price for borders same as before.

Fig. 24 is the identical pattern of Railing which encloses the staircases, galleries, and balconies of the famous CRYSTAL PALACE OF NEW YORK. A medal was awarded to Mr. WICKERSHAM, now Superintendent of the New York Wire-Railing Company, for this and other Iron work furnished for the Palace:

Fig. 24.



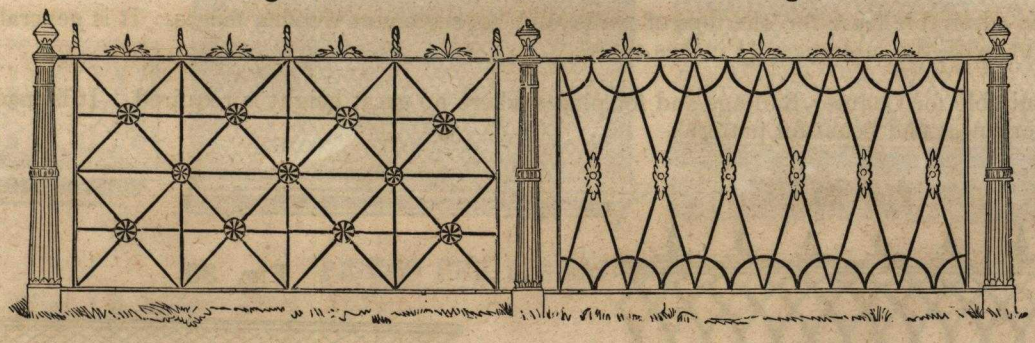
PRICES PER LINEAL FOOT.

Fig. 24—$\frac{1}{4}$ in. Wire, with or without pickets, 3 ft. 4 in. high	$2 00
" $\frac{3}{16}$ in. " " " " " " "	1 75

The standard or centre posts, represented above, price $4 each. It is suitable for any design;—3 ft. 4 in. in height.

Figs. 27 and 28 are ordinary patterns, adapted for places where the appearance of a heavy fence is desirable, and suited to Cemetery purposes:

Fig. 27. **Fig. 28.**



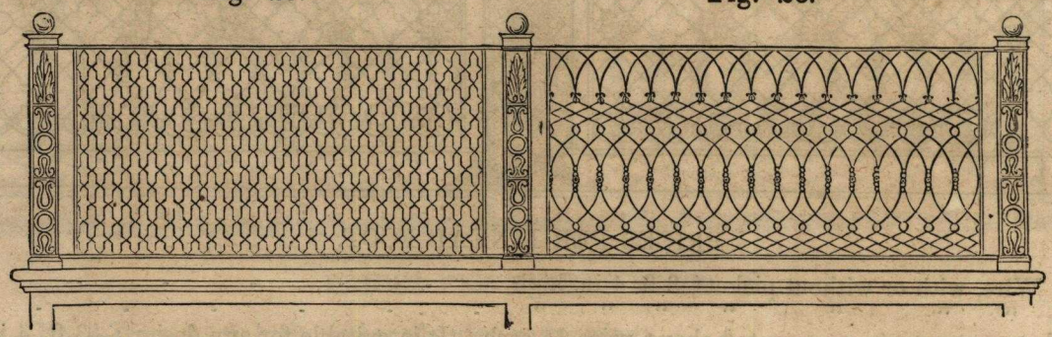
PRICES PER LINEAL FOOT.

Fig. 27—$\frac{1}{4}$ in. Wire, 3 ft. 4 in. high, with pickets	$1 50
" $\frac{5}{16}$ in. " " " " " "	1 75
" $\frac{3}{8}$ in. " " " " " "	2 00
Fig. 28 " " " " " " "	1 50

RAILING FOR BANKS, OFFICES, TOPS OF WALLS, &c.

Figs. 25 and 26 are styles of Railing admirably suited for Banks, Offices, &c., and are largely employed in such places, for enclosing counters, securing windows, and other purposes where protection is required. Many of our principal Banks are now using these beautiful designs. Fig. 25 is a pattern particularly suited for window-guards and gratings, where security and neatness are desired. It can be made to fit any space. The same style is excellently adapted for Conservatories, Dwellings and Stores. The following extra rates are charged, when used for Bank or Office Railings, &c.; Extra for bronzing, 25 cents per foot; Extra for putting up, 25 cents per foot; Extra for each gate and door. One coat of paint is always included in th prices mentioned:

Fig. 25. Fig. 26.



PRICES PER LINEAL FOOT.

Fig. 25—$\frac{1}{4}$ in. Wire, 24 inches high, oval bar on top	$1 75
" $\frac{3}{16}$ in. " " " " "	1 50
Fig. 26—$\frac{3}{16}$ in. " " " " "	2 00

Fig. 29 is an admirable fence for the tops of walls and to surmount wooden fences. It is generally made about two feet in height, with the interstices 4½ inches apart:

Fig. 30 is suitable for Counter-Railings and for places where no great height is required. It is made about 18 in. high, and is a very neat and beautiful pattern:

Fig. 29.

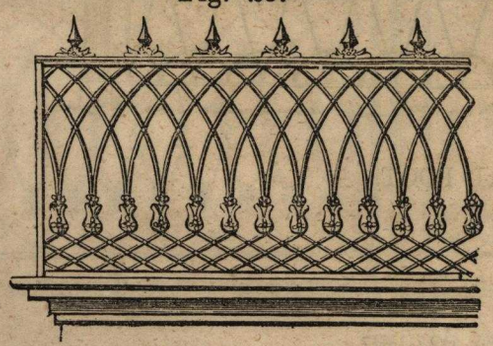
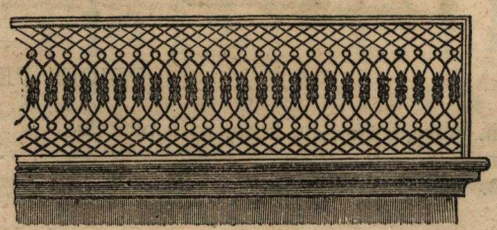


Fig. 30.



PRICES PER LINEAL FOOT.

Fig. 29—$\frac{1}{4}$ in. Wire, 24 inches high, with pickets	$1 25
" $\frac{3}{16}$ in. " " " " "	1 12½
Fig. 30—$\frac{3}{16}$ in. " 1 ft. 6 in. high	1 75

Fig. 31 is another pattern suitable for Counter-Raillngs, and made of the same height as Fig. 30,—eighteen inches.

Fig. 31.

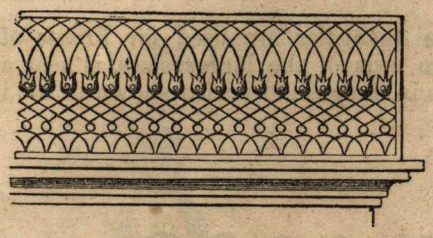
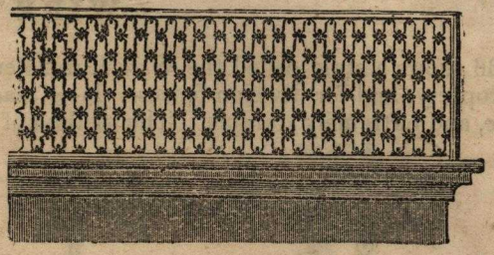


Fig. 32.



PRICES PER LINEAL FOOT.

Fig. 31—$\frac{3}{16}$ in. Wire, 1 ft. 6 in. high - - - - - - - - - $1 75

Fig. 32 is a smaller pattern. It can be made of any required height, and is very useful in filling up spaces of any extent. The peculiarity of this design consists in the repetition of the same pattern in consecutive portions of the work, so that it is not necessary with this style of railing to confine it within specified limits. The simplicity of this design especially adapts it for use in places where the height is uneven.

Fig. 32—$\frac{3}{16}$ in. Wire, 2 ft. high - - - - - - - - - - $2 50
" " " per square foot - - - - - - - - - 1 25

Fig. 33 is a modification of Fig. 31, being only twelve inches high:

Fig. 33.

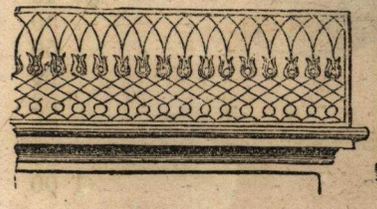


Fig. 34.

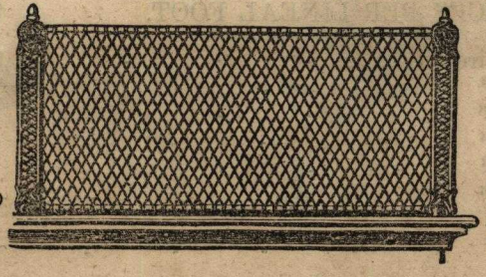
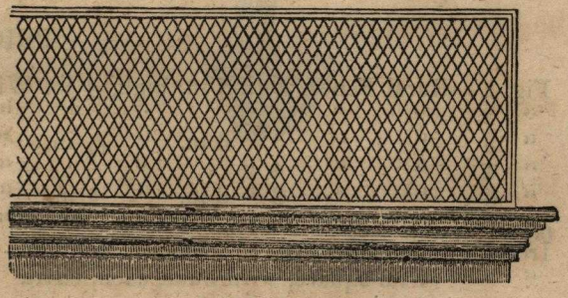


Fig. 35.



PRICES PER LINEAL FOOT.

Fig. 33—$\frac{3}{16}$ in. Wire, 1 ft. high - - - - - - - - - $1 50

Fig. 34 is designated as *No.* 1 *Lattice Pattern.* The top and bottom rails are round instead of flat, and the pattern is cheaper than the one which follows (Fig. 35), which is surrounded by flat bars with oval rail on top. The usual manner of securing these patterns to the counter is by screwing or stapling them down. Doors and openings can be furnished when necessary, and also standards and posts.

PRICES PER LINEAL FOOT.

Fig. 34—No. 13 Wire, 1 in. mesh, 2 ft. high - - - - - - - - $0 75
" " " " " for Window-guards; over 4 square feet, 30 cents per square foot.

Fig. 35 is No. 1 Pattern, 1 in. mesh. It is suitable for Counter and Desk Railings.

PRICES PER LINEAL FOOT.

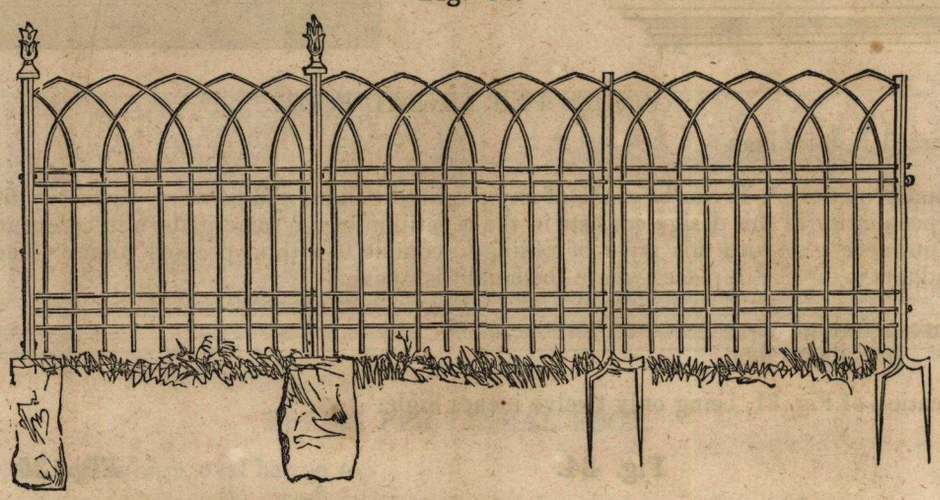
Fig. 35—No. 13 Wire, 1 in. mesh, 2 ft. high - - - - - - - - $1 00
" " " " " for Window-guards; over 4 square feet, 50 cents per square foot.

CHAPTER V.

WIRE RURAL FENCE.

Fig. 36 shows a style called the Wire Rural Fence, of which large quantities are used for Fronts of Villa and Cottage property, and for division fences. It is made entirely of wire rods of the larger sizes, is neat and tasty in appearance, and extremely durable. The method of fastening the posts in the ground is also shown in the illustration:

Fig. 36.



PRICES PER LINEAL FOOT.

Fig. 1,—Rural Fence,	3 ft.	6 in.	high,	$\frac{1}{4}$ in.	Wire	$0 40
" 2 "	" 4 "		"	"	"	50
" 3 "	" 3 "	6 in.	"	$\frac{5}{16}$ in.	"	50
" 4 "	" 4 "		"	"	"	60
" 5 "	" 3 "	6 in.	"	$\frac{3}{8}$ in.	"	62
" 6 "	" 4 "		"	"	"	75$\frac{1}{2}$
Iron Posts for Hurdles, each, extra						50
" " 1 in. square, with buds, each, extra						1 00

CHAPTER VI.

POSTS.

THE ornamental Posts are furnished with the Wire Railing at an extra charge. They are needed only at the corners and at the gates. The intermediate posts (see Posts design, Fig. 12), made of wrought iron, and surmounted with a bud, are always furnished without extra charge, and are included in the foregoing prices for the Railing. It is, however, frequently the case that persons prefer cast-iron posts between the panels; and where such is the case, much is added to the ornamental appearance of the Railing, at a trifling additional cost. These posts are made of all sizes, from two inches in diameter to two feet, and from one foot in height to eight. The prices range from $1 to $75. We have many designs for Posts, which are not included in the following illustrations: they are made in great variety and of very beautiful patterns. Styles of large Posts for Villa entrances are shown in the succeeding chapter, on "Composite Railing."

Fig. 1 is a newel. It is a style used for Stoops, and Gate, and corner Posts.

Fig. 1.

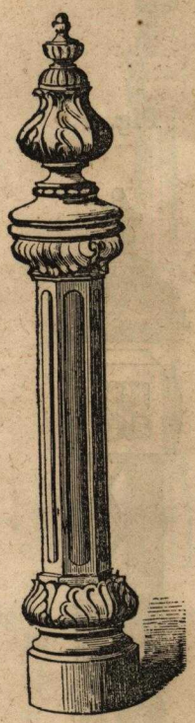


Fig. 2.

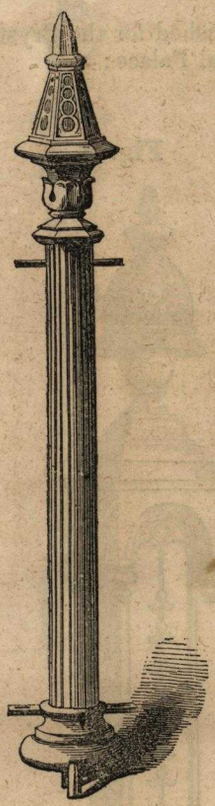
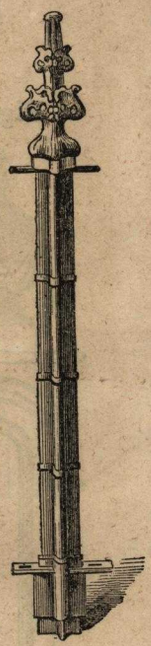


Fig. 4.



Price.——Fig. 1—Post for Railing, 3 ft. 4 in. high - - - - - - - - $6 00

Figs. 2 and 4 are used with the Composite Railing (Chap. VII.), and the prices for that Railing correspond with these.

	2 ft. 9 in.	3 ft. 5 in.	3 ft. 10 in.	4 ft. 10 in.
Prices.——Fig. 4, Post	$1 40	1 50	1 60	2 00
" 2, "	$2 75	3 00	3 25	3 75

Figs. 3, 5 and 6 are Cemetery Posts, but suitable for any place where posts of ordinary height are required.

Fig. 7 is the identical style of Newel furnished for the Crystal Palace by our establishment. Fig. 8 is a style of Octagon Post, used on the outside of the Crystal Palace:

Fig. 3.

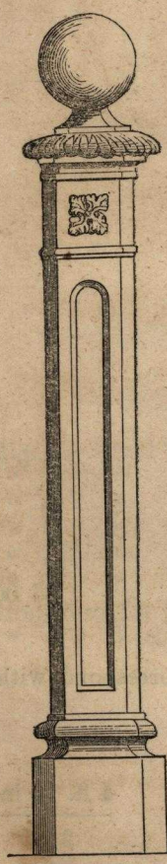


Fig. 5.

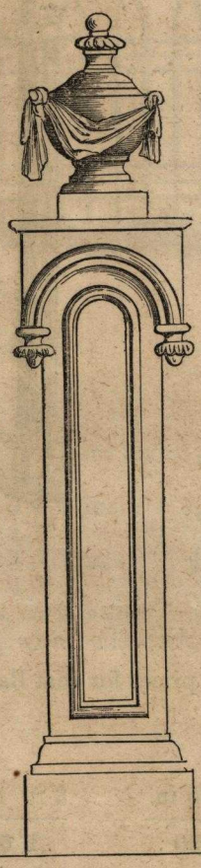


Fig. 6.

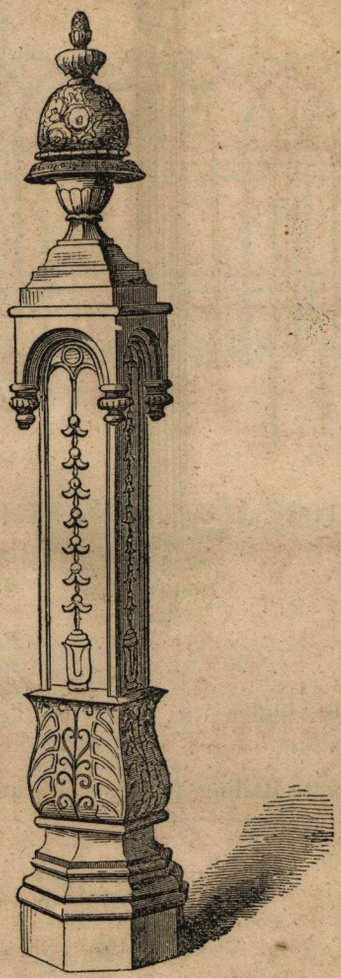
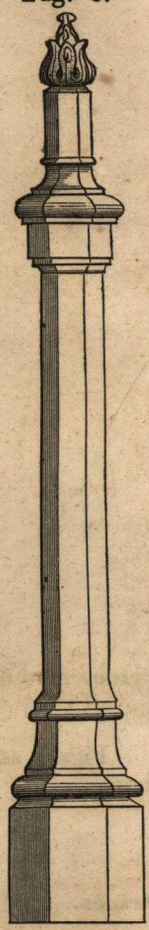


Fig. 7.

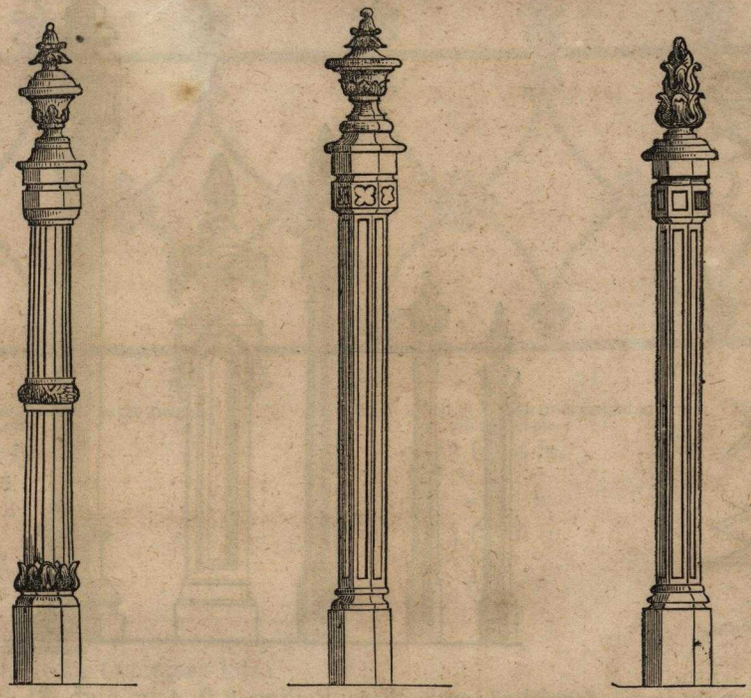
Fig. 8.



Prices.——Fig. 3, For Railings, 4 ft. high - - - - - - - - - $10 00
" 5 " " 3 ft. 4 in. high - - - - - - - - - 12 00
" 6 " " " " " - - - - - - - - - 12 00
" 7 " " " " " - - - - - - - - - 15 00
" 8 " " 5 " 6 " " - - - - - - $15 00 to 20 00

Figs. 9, 10 and 11 are Posts most commonly used with the Wire Railing:

Fig. 9. **Fig. 10.** **Fig. 11.**



Prices.——Fig. 9, For Railing, 3 ft. 4 in. high - - - - - - - $2 50
" 10 " " " " " - - - - - - - - 2 50
" 11 " " " " " - - - - - - - - 2 50
" " " " 4 ft. " - - - - - - - - 4 00
" " " " 5 ft. 6 in. " - - - - - - - - 7 00

Figs. 12 to 17 in the following illustrations exhibit different styles of Posts. Fig. 12 shows the manner of connecting the panels of the Wire Railing, illustrating the design of the Bud-post, as it is called. It is common to connect all the panels of the Wire Railing in this manner where cast-iron posts are not used.

Fig. 13 is termed the small Octagon, and is used for Cemeteries and Offices, with both wire and cast-iron railing.

Fig. 14 shows the Fluted Post, used for the same purposes as Fig. 13.

Fig. 15 is the large Gothic Post, used for Fences. It is made 4 ft. high, and upwards.

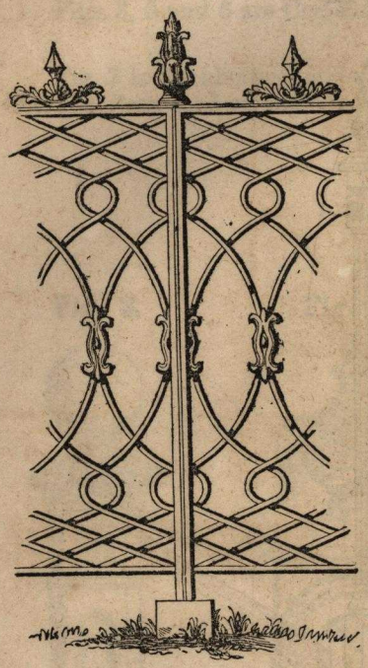
Fig. 16 is called the Drapery Post, and is surmounted by an urn and flames. This style is especially adapted for cemetery purposes. When surmounted by *an iron ball*, in place of the urn, it is suitable for Gateways and for Newels to Staircases.

Fig. 17 is the large Gothic style, known as the "Crystal Palace Post." It is in use in the outer enclosure of the Crystal Palace in New York. The same style of post can be arranged for lamps, by means of a projection from the bud upwards, similar to the pattern shown in Fig. 100, where the lamp post is illustrated.

Fig. 18 is a style of wrought iron post.

Prices.——Fig. 12, Bud-post, is included in the prices set down for the Wire Railing, without extra charge.
" 13, Octagon Post, from $2 50 to $7 00, according to height and diameter.
" 14, Fluted Post, $2 50, ordinary height 3 ft. 4 in.
" 15, Octagon Post, same as Fig. 13, showing the difference in size, 4 ft. high, $4 00.
" 16, Urn-post, for Cemetery use, $12 00.
" 17, Crystal Palace Post, from $15 to $20.

Fig. 12.



Figs. 13, 14, 15, 16, 17.

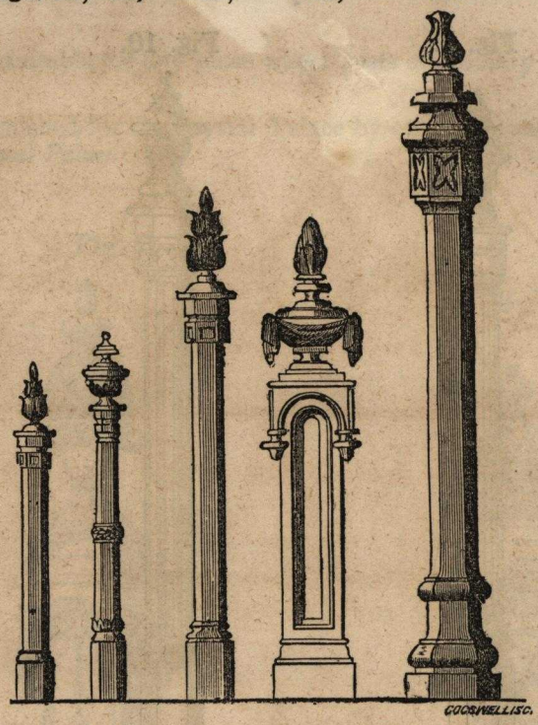
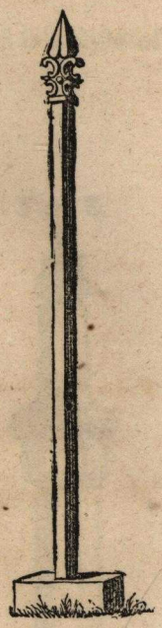


Fig. 18.



Prices.——Fig. 18, (Wrought-iron,) furnished with Wire Railing 3 ft. 4 in. high, $1 25; 4 ft. high $1 50. This post, when furnished with the Wire Railing, is surmounted with an ornamental bud. When furnished with the Composite Railing, they are surmounted by a cast-iron picket, and at the following prices:

	2 ft. 9 in.	3 ft. 5 in.	3 ft. 10 in.	4 ft. 10 in.
Wrought-iron Posts, 1 inch square	$0 40	0 50	0 60	1 00

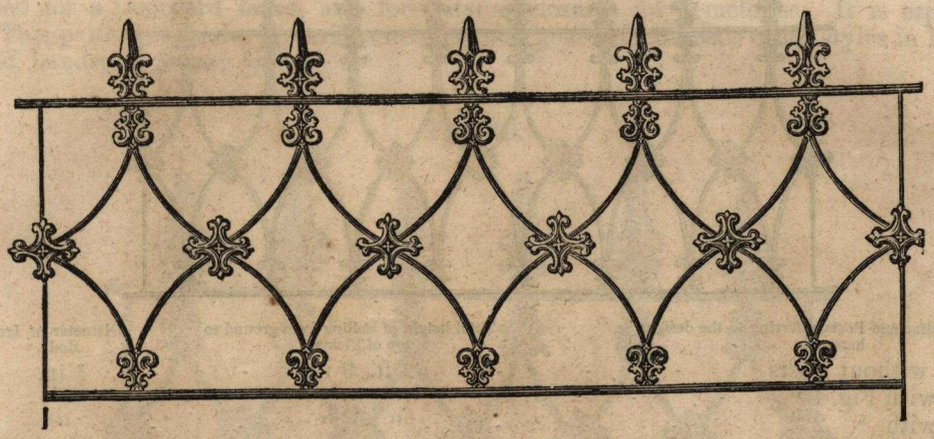
CHAPTER VII.

COMPOSITE RAILING.

We are now manufacturing a new and very beautiful style of Railing, termed the *Composite Railing*. This is a union of wrought and cast iron, so formed as to give remarkable strength and durability to the work. The patent for this Railing was issued January 13th, 1852. The peculiarity of the work consists in the application of a process for casting solid rosettes upon the iron rods at the point of intersection, without the aid of rivets. The pickets which surmount this Railing are also cast directly upon the rods. By means of this process, the rods are rendered completely immovable and firm, and the admission of moisture is totally prevented; the Railing being thereby rendered exceedingly durable. A large variety of patterns of this Railing are made; a few samples being exhibited in the succeeding illustrations. This style of work is meeting with universal favor, and the Composite Railing is acknowledged by persons who have used it to be a decided advance upon former patterns. Very large quantities are already set up in different parts of the country, and an increasing demand proves the excellence of the new application of Iron thus introduced to public attention.

Fig. 3A is a cheap form of Composite Railing. The interstices are one foot apart. This pattern forms a cheap and substantial Cemetery fence, and is suitable for enclosures in places where it is not necessary to confine small animals.

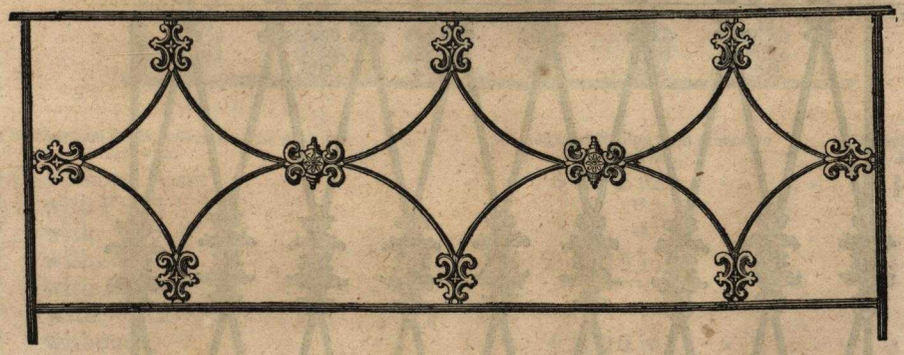
Fig. 3A.



Prices.—Pattern of Railing and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Lineal Foot.
Fig. 3A, without Posts	3 ft. 4 in.	$\frac{3}{8}$ in.	$0 90
" with Fig. 4 "	" "	"	1 15
" with " 2 "	" "	"	1 45
" without "	3 ft. 5 in.	$\frac{1}{2}$ in.	1 12½
" with Fig. 4 "	" "	"	1 37½
" with " 2 "	" "	"	1 62½

Figure 4A is also intended for Cemetery lots:

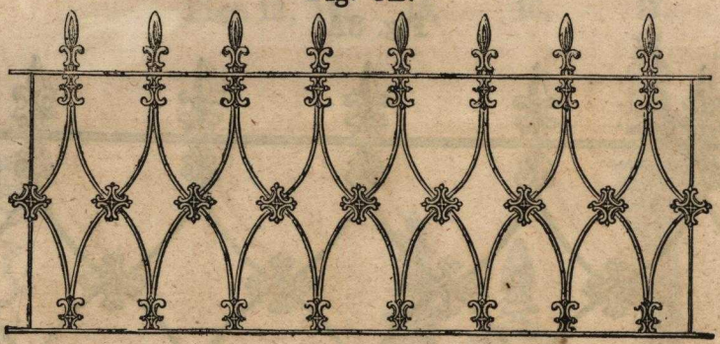
Fig. 4A.



Prices.—Pattern of Railing and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Lineal Foot.
Fig. 4A, without Posts	3 ft. 4 in.	$\frac{3}{8}$ in.	$0 75
" with Fig. 4 "	" "	"	1 00
" with " 2 "	" "	"	1 25
" without "	3 ft. 5 in.	$\frac{1}{2}$ in.	1 00
" with Fig. 4 "	" "	"	1 25
" with " 2 "	" "	"	1 50

Fig. 3B is of the same design as the two preceding, except that the meshes are closer and the height not quite so great. This is a very desirable pattern for Cemetery enclosures and wall fences, where much height is not requisite.

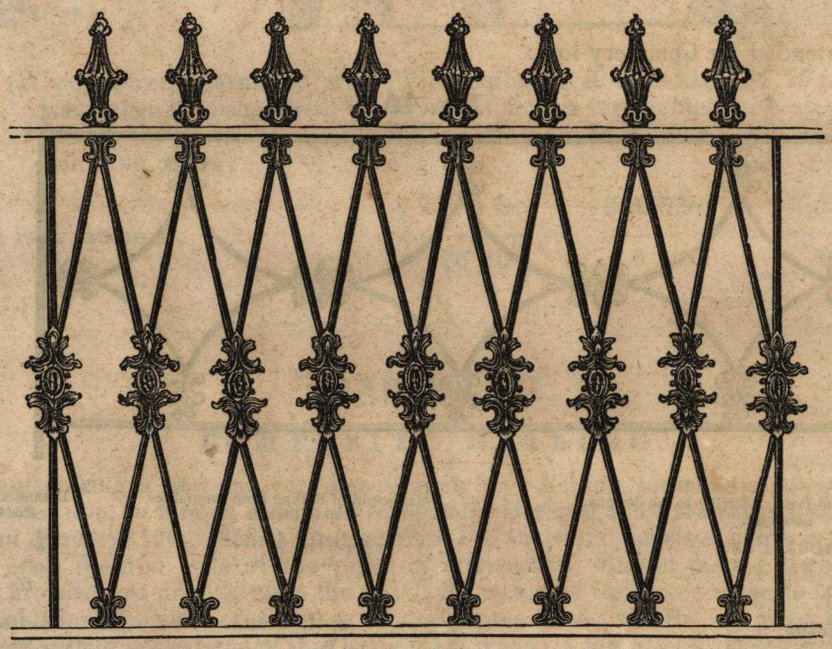
Fig. 3B.



Prices.—Pattern of Railing and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Linea Foot.
Fig. 3B, without Posts	2 ft. 9 in.	$\frac{3}{8}$ in.	$0 95
" with Fig. 4 "	" "	"	1 20
" with " 2 "	" "	"	1 40
" without "	2 ft. 10 in.	$\frac{1}{2}$ in.	1 15
" with Fig. 4 "	" "	"	1 40
" with " 2 "	" "	"	1 65

Fig. 4C is intended for a Dooryard fence, and is extensively used for that purpose, as well as for Cemeteries ; in fact, any of the patterns of the Composite Railing are suitable for Cemetery lots :

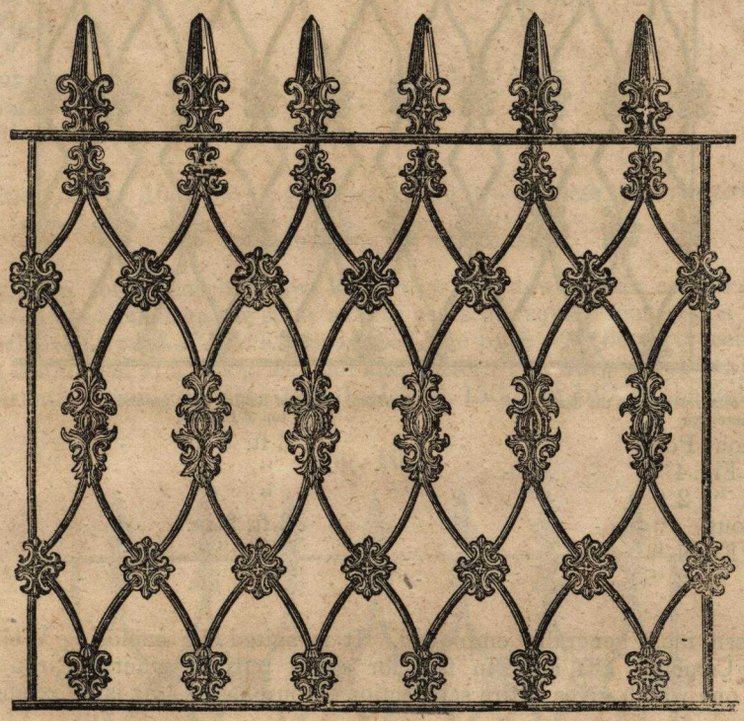
Fig. 4C.



Prices.—Pattern of Railings and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Lineal Foot.
Fig. 4C, without Posts	3 ft. 4 in.	$\frac{2}{8}$ in.	$1 25
" with Fig. 4 "	" "	"	1 50
" with " 2 "	" "	"	1 75
" without "	3 ft. 5 in.	$\frac{1}{2}$ in	1 50
" with Fig. 4 "	" "	"	1 75
" with " 2 "	" "	"	2 00

Fig. 9C is used for a Dooryard fence, and for outer enclosures for Cemeteries. It is especially adapted for enclosing Parks. This pattern is made of various heights, and generally exceeds other styles in height. It makes a very substantial and handsome fence:

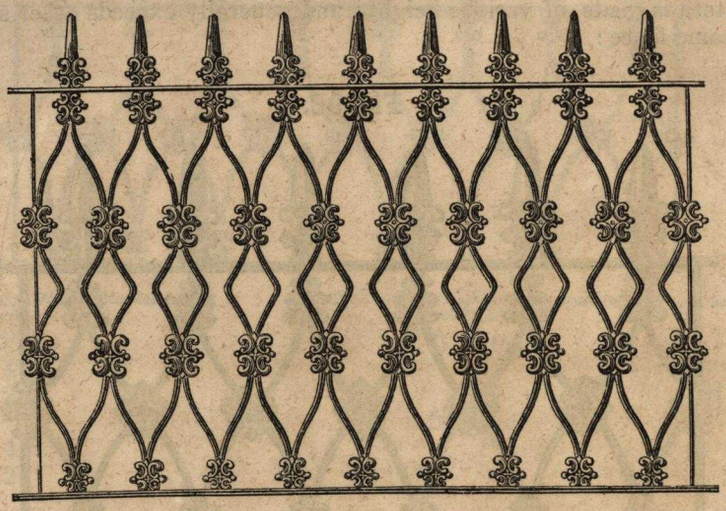
Fig. 9C.



Prices.—Pattern of Railings and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Lineal Foot.
Fig. 9 C, without Posts	3 ft. 9 in.	$\frac{3}{8}$ in.	$1 85
" with Fig. 4 "	" "	"	2 12½
" with " 2 "	" "	"	2 40
" without "	3 ft. 10 in.	½ in.	2 10
" with Fig. 4 "	" "	"	2 37½
" with " 2 "	" "	"	2 64
" without "	4 ft. 10 in.	$\frac{3}{8}$ in.	2 12½
" with Fig. 4 "	" "	"	2 45
" with " 2 "	" "	"	2 75
" without "	4 ft. 11 in.	½ in.	2 40
" with Fig. 4 "	" "	"	2 73
" with " 2 "	" "	"	3 03

Fig. 10C is another modification of the same style:

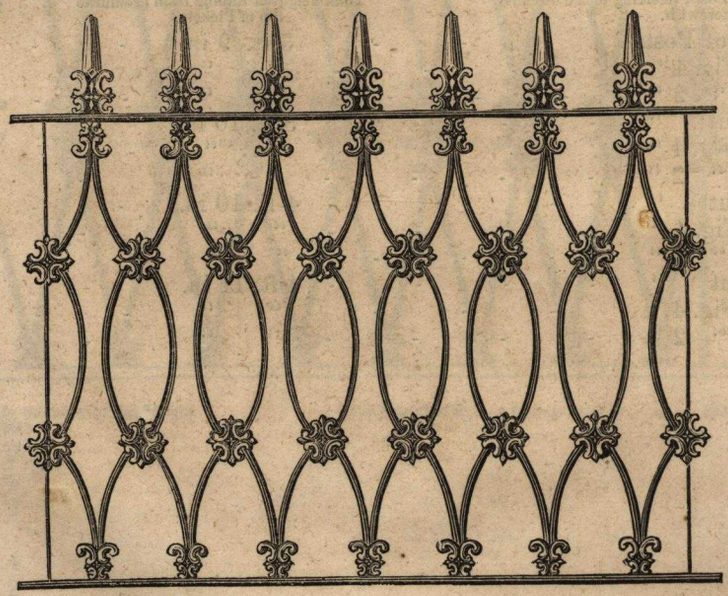
Fig. 10C.



Prices.—Pattern of Railing and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Prices per Lineal Foot.
Fig. 10C, without Posts	3 ft. 8 in.	$\frac{3}{8}$ in.	$1 50
" with Fig. 4 "	" "	"	1 77
" with " 2 "	" "	"	2 04
" without "	3 ft. 9 in.	$\frac{1}{2}$ in.	1 70
" with Fig. 4 "	" "	"	1 97
" with " 2 "	" "	"	2 25

Fig. 12 C. is the pattern most generally employed. It is suited for enclosing Well-holes in Stores, for Office-railings, for Dooryards, for Cemetery lots, and, in fact, for every purpose where an iron fence is required. We can recommend this pattern as one which gives entire satisfaction to purchasers. It is in extensive use:

Fig. 12C.



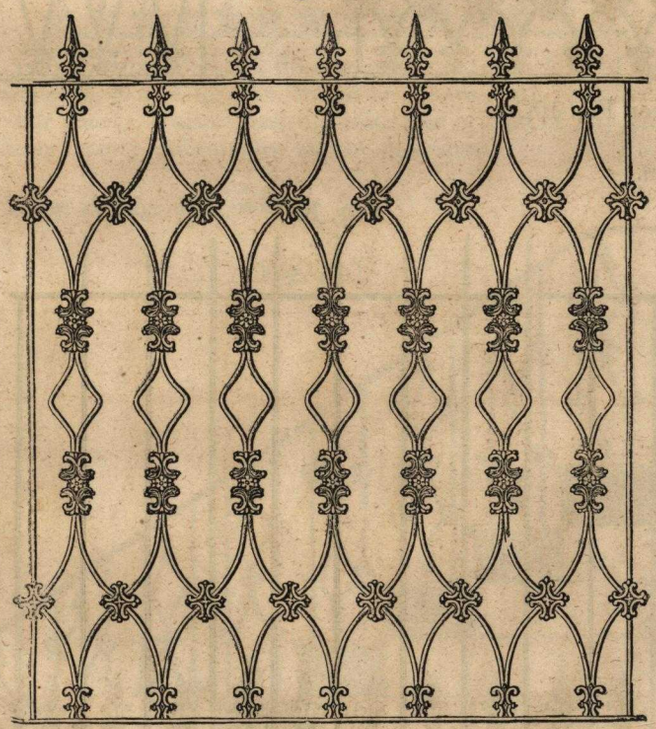
Prices.——Pattern of Railing and Posts, referring to the designs herewith.	Total height of Railing from ground to top of Pickets.	Diameter of Iron Rods.	Price per Lineal Foot.
Fig. 12C, without Posts	3 ft. 4 in.	$\frac{3}{8}$ in.	$1 37½
" with Fig. 4 "	" "	"	1 62½
" with " 2 "	" "	"	1 87½
" without "	3 ft. 5 in.	½ in.	1 55
" with Fig. 4 "	" "	"	1 80
" with " 2 "	" "	"	2 05
" without "	3 ft. 10 in.	$\frac{3}{8}$ in.	1 50
" with Fig. 4 "	" "	"	1 77
" with " 2 "	" "	"	2 04
" without "	3 ft. 11 in.	½ in.	1 75
" with Fig. 4 "	" "	"	2 00
" with " 2 "	" "	"	2 25

Fig. 10D. is a modification of Fig. 10C, showing an extra height,—not less than *five feet.*

SUGGESTIONS TO PURCHASERS.

Parties wishing to estimate for themselves for Railing or Window-guards, can do so by taking the number of square feet in a running foot, and calculating the same at fifty cents per square foot:—this will give them the price per lineal foot, when made of half-inch iron. If $\frac{3}{8}$ inch iron is used, the price will be forty cents per square foot, except for pattern Fig. 16C, which is afforded at a less price, and also pattern Fig. 15C, which may be made of heavier iron much cheaper. These explanations apply to Figs. 10D, 13C, 14C, 15C, and 16C, in the following illustrations:

Fig. 10D.



For Prices.——(See preceding explanation.)

Fig. 13C exhibits another style, intended for Park fences.
Fig. 14C shews another style of Park fence. It is also suitable for Suburban Villas.

Fig. 13C.

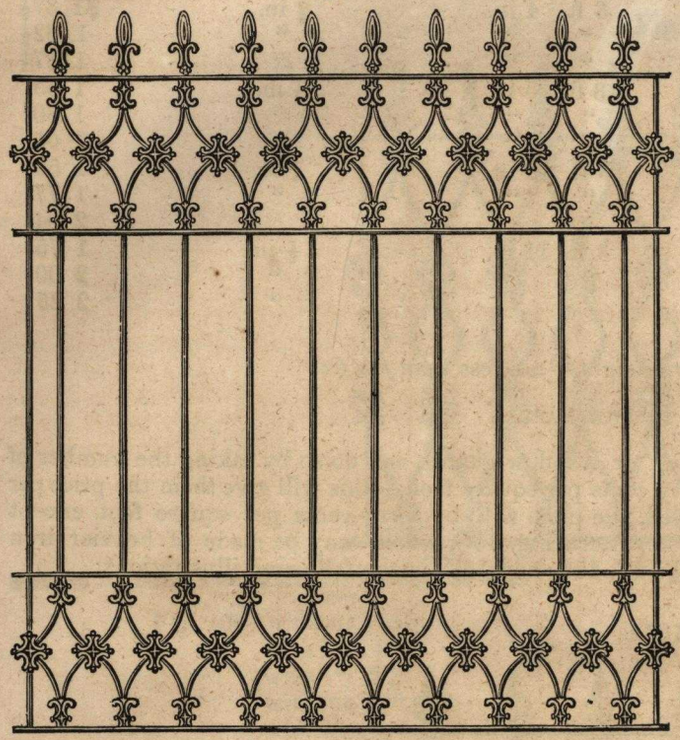
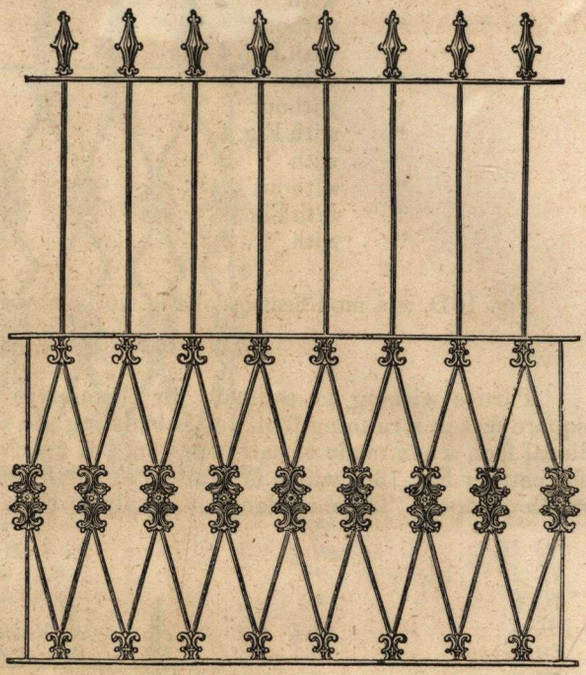


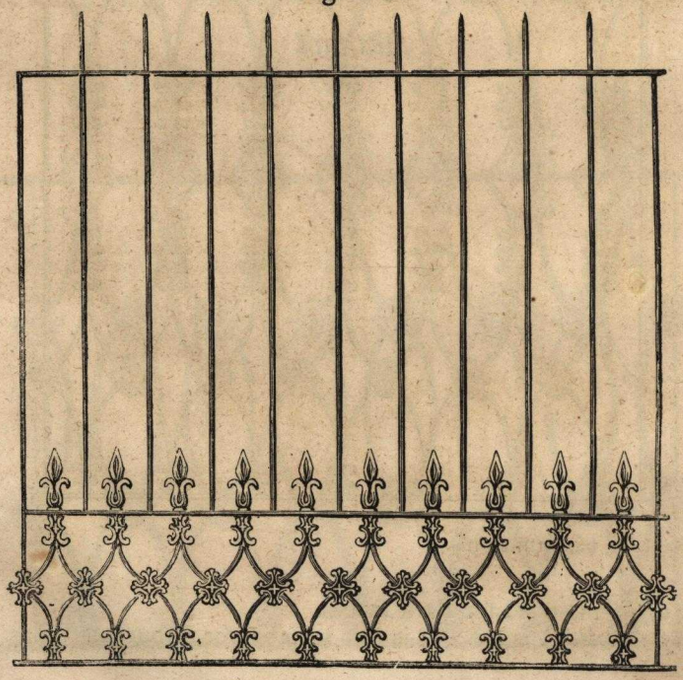
Fig. 14C.



Prices.——(See explanation Fig. 10C.)

Fig. 15C is another pattern.

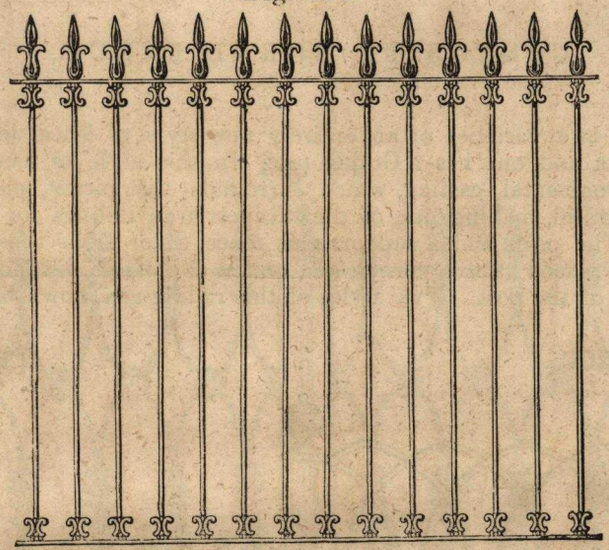
Fig. 15C.



Prices.——5 ft. high upright rods ¾ in., with or without cast iron pickets, the lattice work at the bottom of ½ in. iron—$2 50 per lineal foot.

Fig. 16C is still another and simpler style of fence, sold at a much lower rate. It is peculiarly adapted for division-lines for adjoining property. It may be made of light or heavy materials:

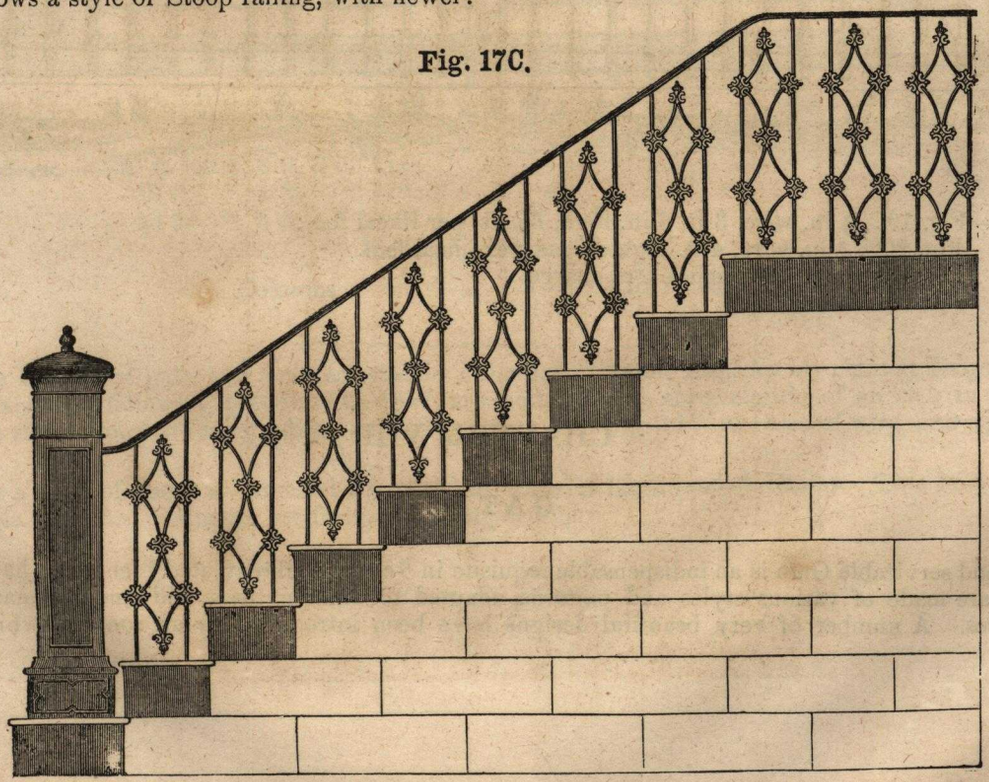
Fig. 16C.



Prices.——4 ft. 6 in. ½ in. rods for uprights—$1 25 per lineal foot; uprights 6 inches apart. This pattern can be made of ½, ¾, or 1 in. iron, round or square, with uprights closer together than the above, or further apart. Parties desiring estimates of cost of any particular size will send a sketch, and the necessary information will be furnished.

Fig. 17C shows a style of Stoop railing, with newel:

Fig. 17C.

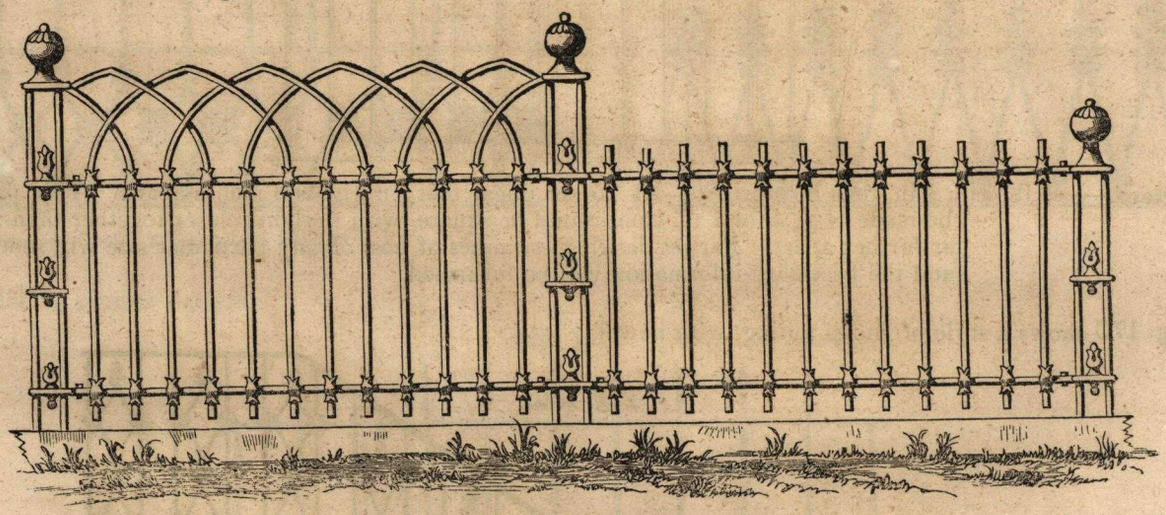


Prices.——$2 per lineal foot for Stoop railing. Newels from $2 50 to $10 each. Price of one shewn in the engraving, $8.

COMPOSITE RURAL FENCE.

Figs. 19 C. and 20 C. are two varieties of an entirely new style of fence, termed the *Composite Rural.* One variety is furnished with pickets, and one has a Gothic top. In this style of fence the rails are attached to the uprights by means of a solid ornamental casting, which surrounds the picket, and makes the whole rigid. The patterns are very neat and beautiful, making one of the cheapest iron railings for use in cemeteries, rural grounds, dooryards and enclosed lots. The posts which support this fence, differ from those attached to other styles, being made of four upright wires, one placed at each corner, and united at suitable distances by cast iron ornaments, which add to the strength and rigidity of the post. Two styles of this railing are shown below:

Fig. 20C. **Fig. 19C.**



Prices.——Fig. 19C, ⅜ in. wire, 3 ft. 6 in. high, 65 cts. per lineal foot.
Fig. 20C, ⅜ in. wire, 4 ft. high, 75 cts. per lineal foot.
Posts as shown, $1 each, extra charge.

CHAPTER VIII.

GATES.

A neat and servicable Gate is an indispensable requisite in "every well-regulated" fence; to have such is a great object. Gates are made of various styles and patterns, adapted to different uses, and undergo manifold changes as occasion requires. A number of very beautiful designs have been introduced by us, some of which are exhibited below.

The Composite Gate, shown in Fig. 18C, is made in the same manner as the Composite railing:

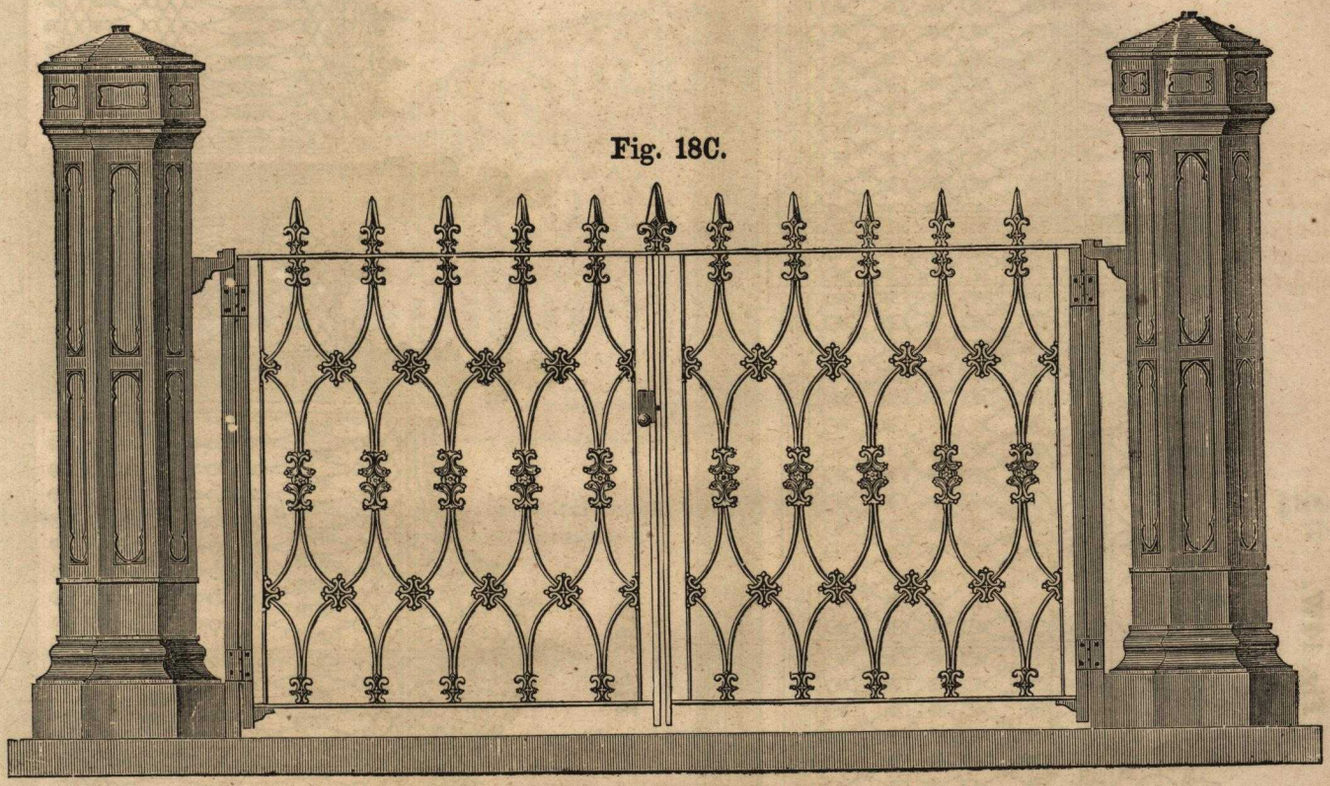


Fig. 18C.

Prices.——10 ft. gates, 3 ft. 5 in. high - - - - - - $35 00
10 ft. " 4 ft. " - - - - - - - 40 00
10 ft. " 5 ft. " - - - - - - 50 00

made of ½ in. iron rods.

Columns - - - $40 00 each.

Fig. 14W is a style of gate and fence selected by John Jacob Astor, Esq., for his place at Esopus, and fronts his grounds. This and the following pattern, Fig. 15W, are made of wire three-eighths of an inch in diameter. Gates manufactured in this manner are very substantial. The columns in Fig. 14W are also of wire, four-square.

Fig. 15W is a style of gateway intended for park entrances in large landed estates. This is a very ornamental as well as durable pattern. Estimates are furnished on application.

Fig. 14W.

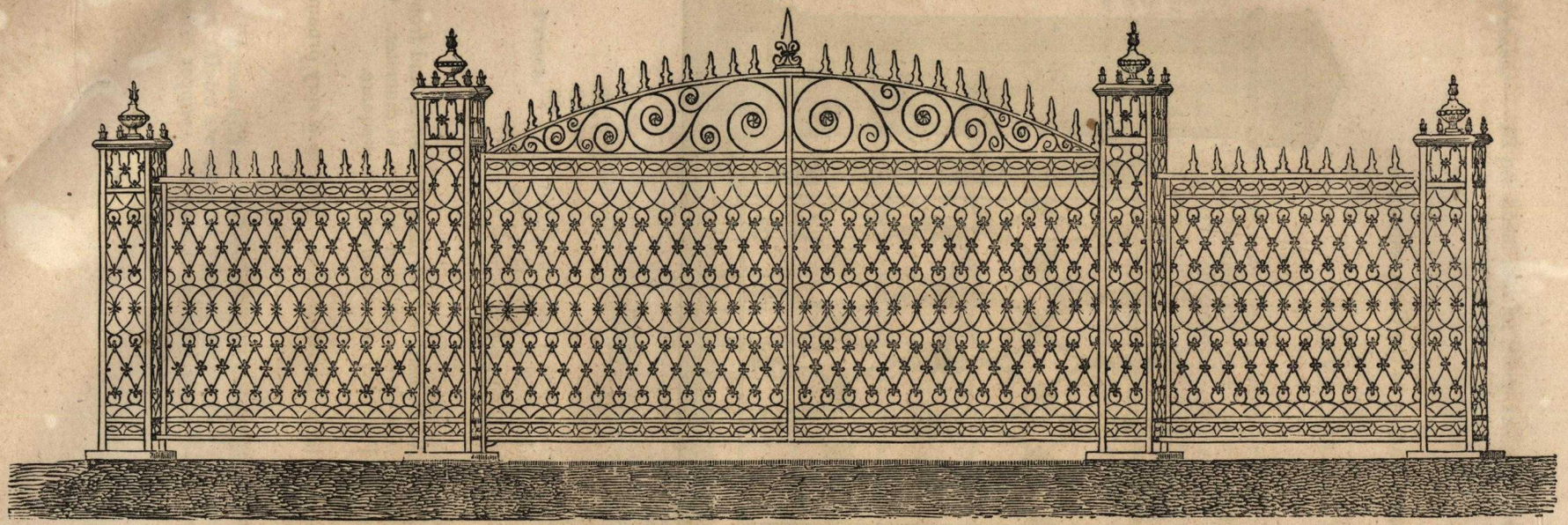


Fig. 15W.

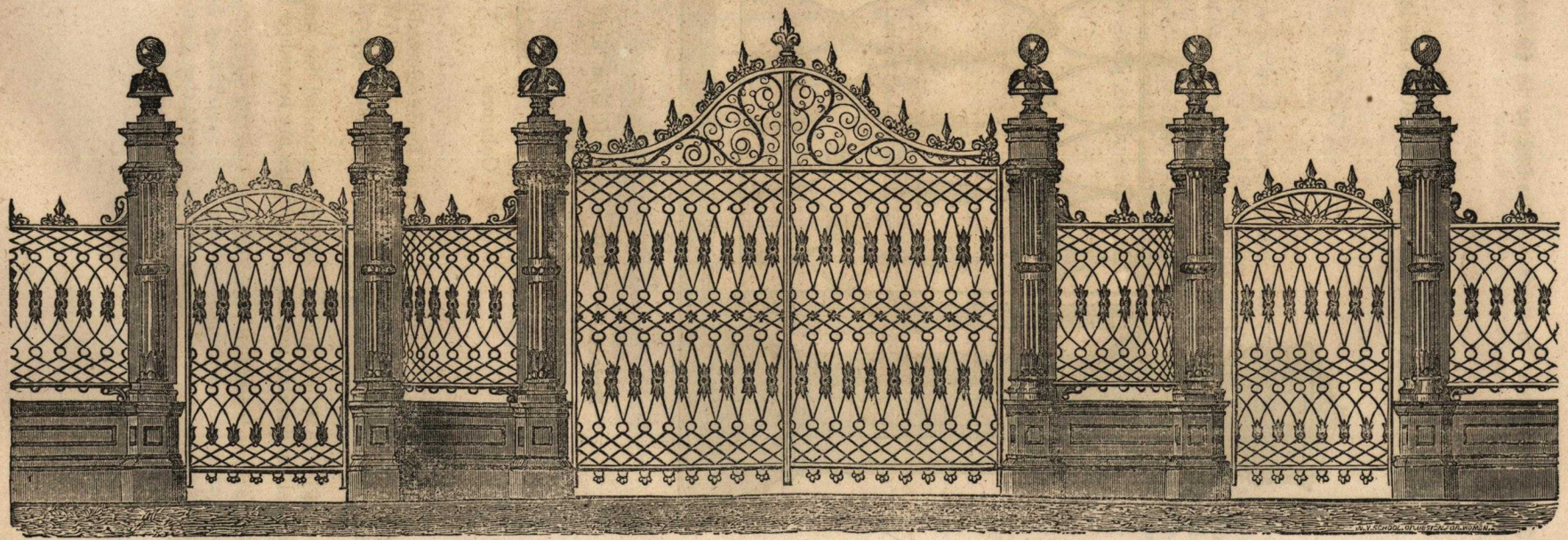
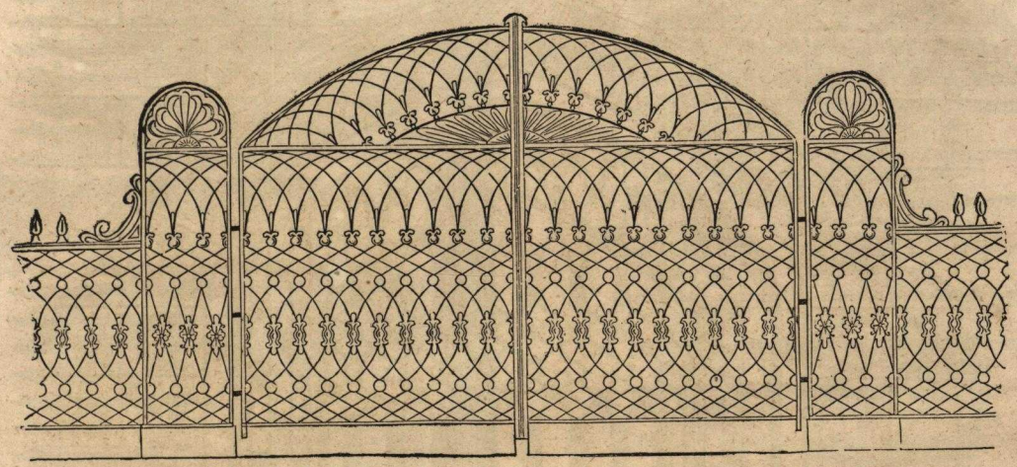


Fig. 19W is the style of entrance-way in use in Forsyth Place, in the city of Savannah. This pattern is also made of large wire, three-eighths of an inch in diameter. It has been in use in Forsyth Place upwards of five years, and proves extremely durable and serviceable:

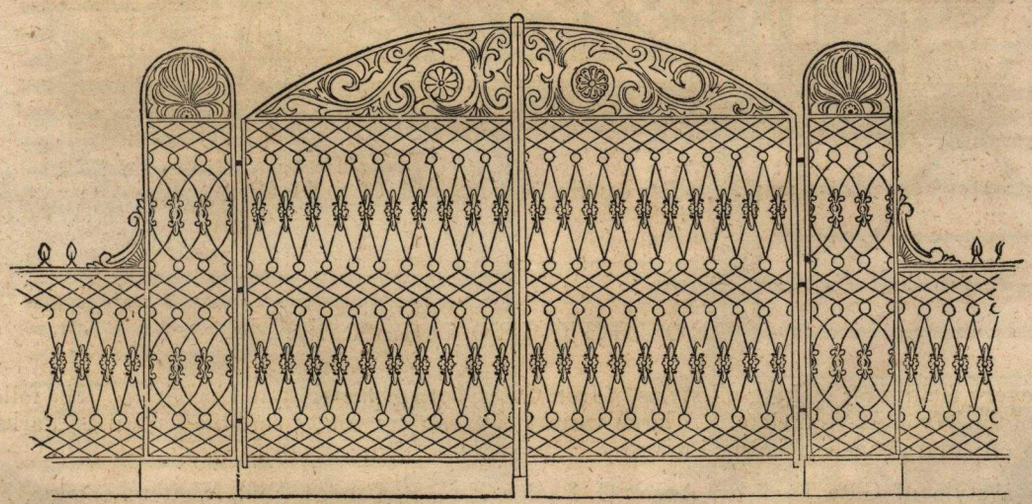
Fig. 19W.



Prices.—$\frac{3}{8}$ in. Wire, 5 ft. 6 in. high, with ornamental arched top, 10 ft. wide, (for Gate only) - - $100
" " " " Gate, without arched top - - - - - - - - 75
Columns extra price.

Fig. 16W differs slightly from the preceding:

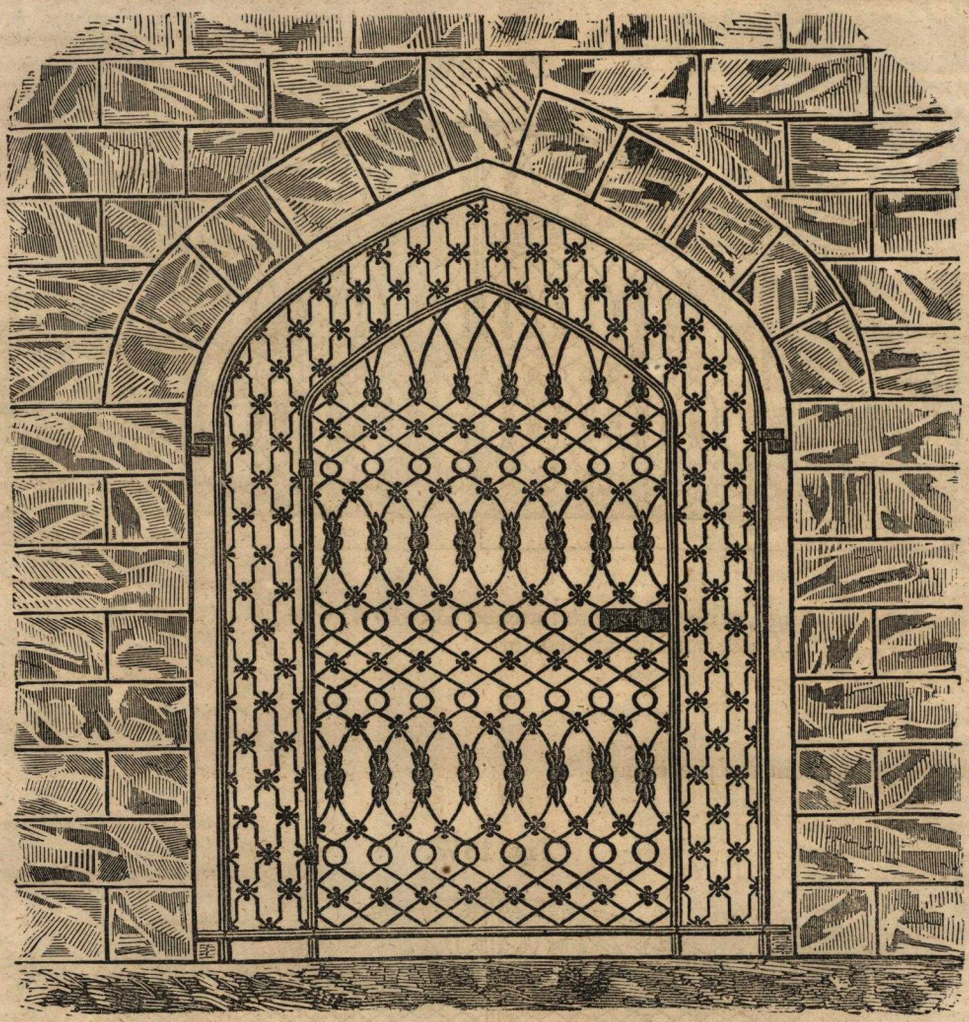
Fig. 16W.



Prices.—$\frac{3}{8}$ in. Wire, 5 ft. 6 in. high, with scroll top, Gate 10 ft. wide - - - - $100
" " " " " without " " " " " - - - - - 75

Fig. 20W shows a style of Gate suitable for setting in walls :

Fig. 20W.



Prices.—Per square foot, from $1 00 to $1 50.

WROUGHT IRON GATES.

We have every facility for making all styles of Iron Gates, both of wrought and cast iron. The following patterns show samples of the Wrought-Iron Gate. A large variety of these are made, suitable for Villas, Parks, &c. Almost any description of pattern can be furnished to order.

Fig. 50 is a style of Gate used by Anson G. Phelps, Esq., E. Cunard, Esq., Walter Langdon, Esq., and many others, for main entrances.

Fig. 51 is one of the styles used for a main entrance to the estate of Walter Langdon, Esq. It is an elegant pattern.

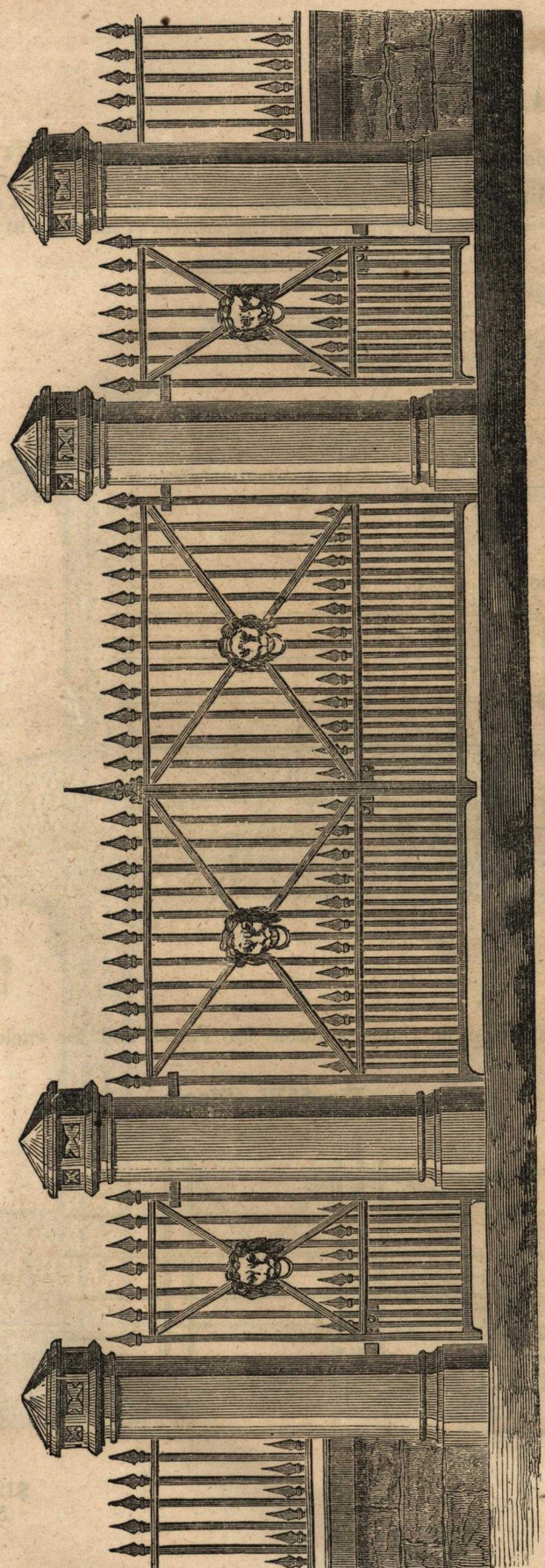


Fig. 50.

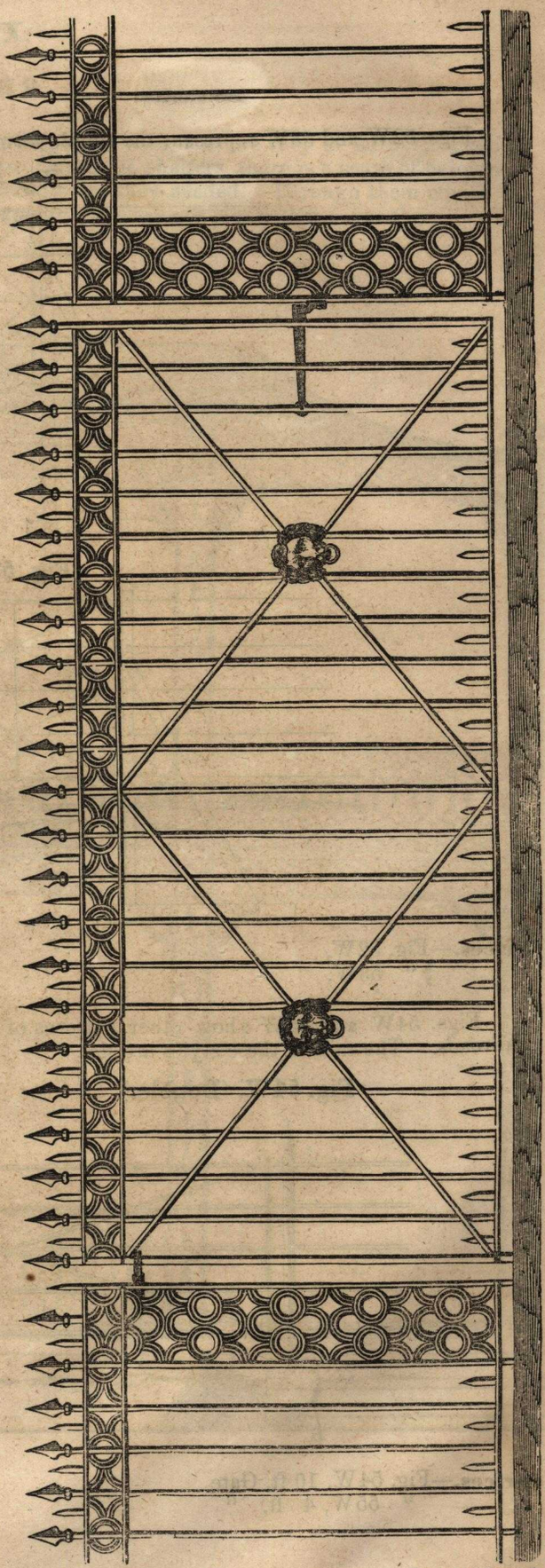


Fig. 51.

Prices.—Fig. 50, - - - 10 ft. Gate, $100 00 each, - - - 4 ft. Gate, $40 00 each.
" 51 " " 100 00 " . . " " 40 00 "

Figs. 52W and 53W represent the simple form of Single and Double Gates for Farm purposes.

Fig. 52W. (Single Gate.)

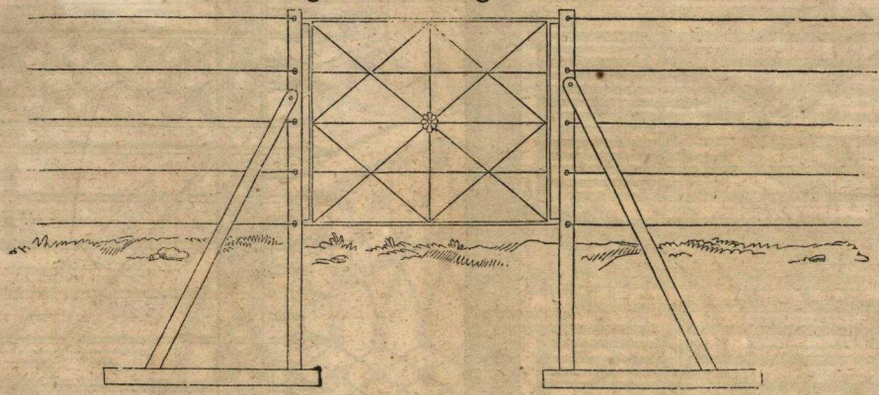
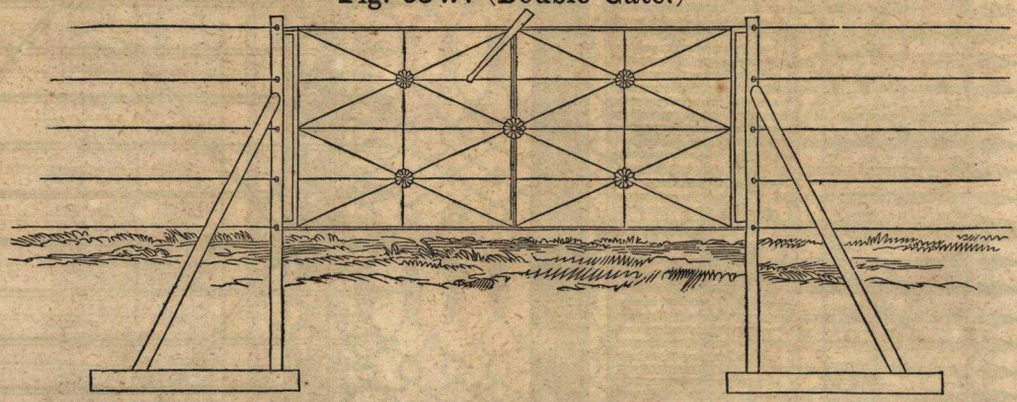


Fig. 53W. (Double Gate.)

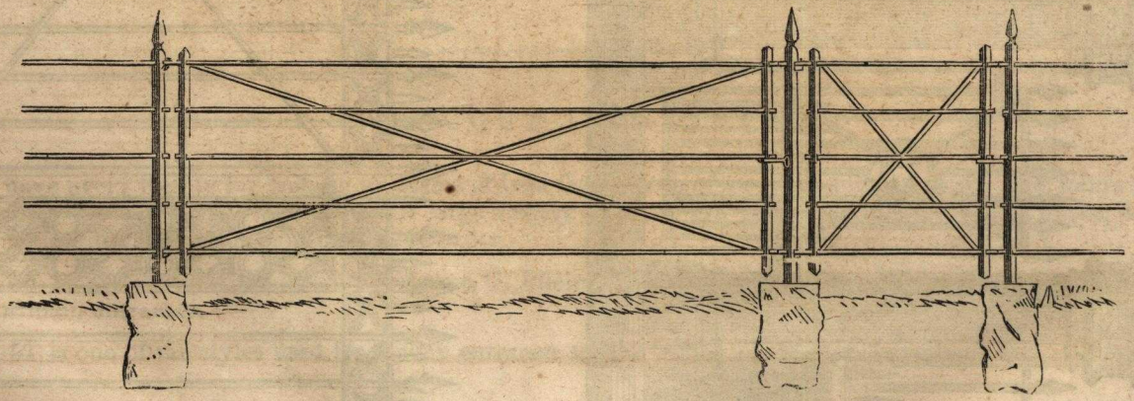


Prices.—Fig. 52W, - - - - - - - - - - - - $7 00
" " 53W, - - - - - - - - - - - - 15 00

Figs. 54W and 55W show other patterns of Single and Double Gates, suitable for Farms and for enclosing Railroads. The rails in these styles are *flat*.

Fig. 54W. (Double.)

Fig. 55W. (Single.)



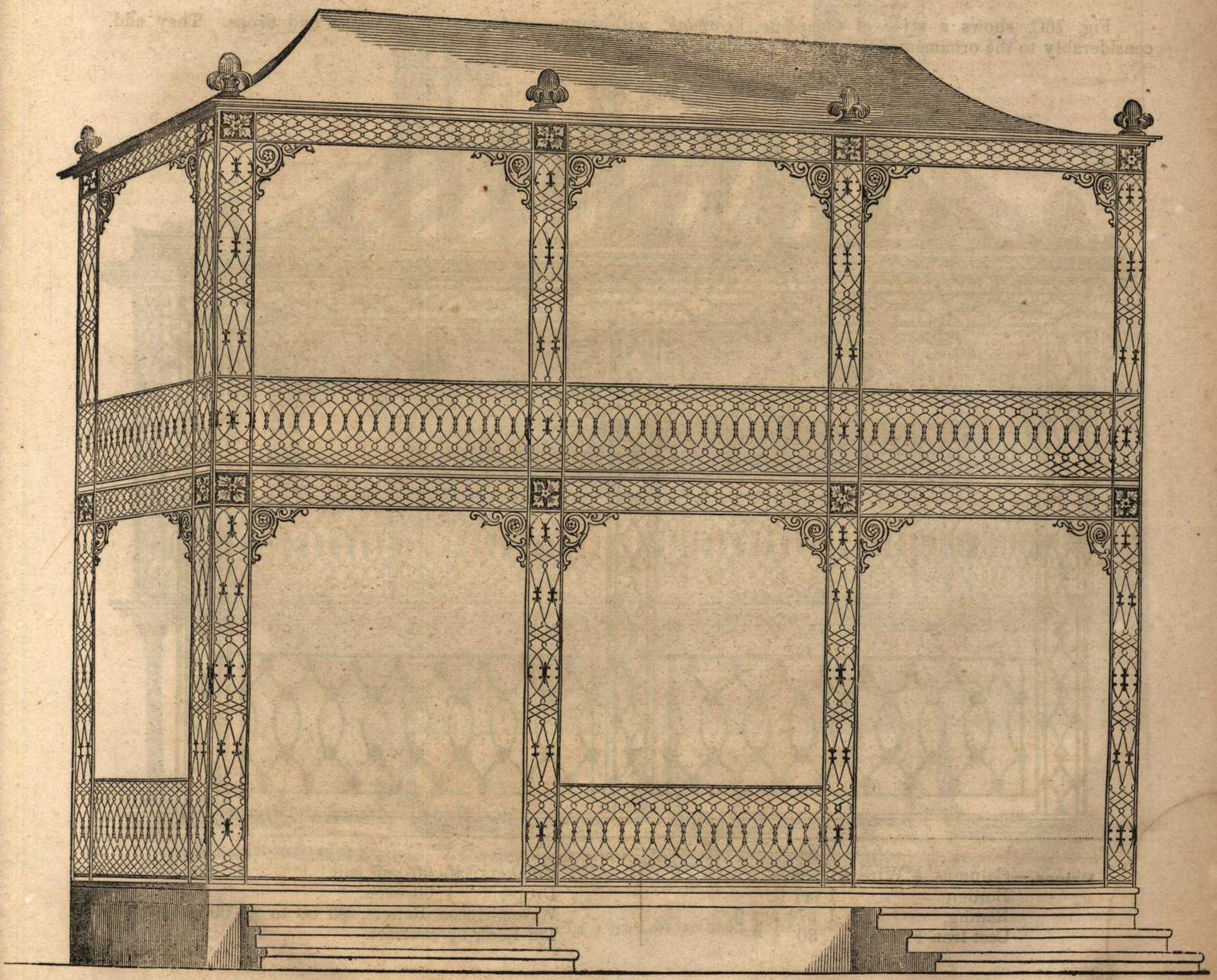
Prices.—Fig. 54W, 10 ft. Gate - - - - - - - - - - $12 00
" 55W, 4 ft. " - - - - - - - - - 5 00

CHAPTER IX.

VERANDAHS.

VERANDAHS are portions of a country house which cannot be dispensed with, nor are they to be overlooked in preparing plans for City and Suburban residences. In one of these delightful shelters, there is a sense of enjoyment to be found that can be had nowhere else. In a Country-seat especially are they needed. Through them comes the view of pleasant twilights, and the evening breezes blow sweetly among the climbing plants that cover them. Walls

Fig. 75.

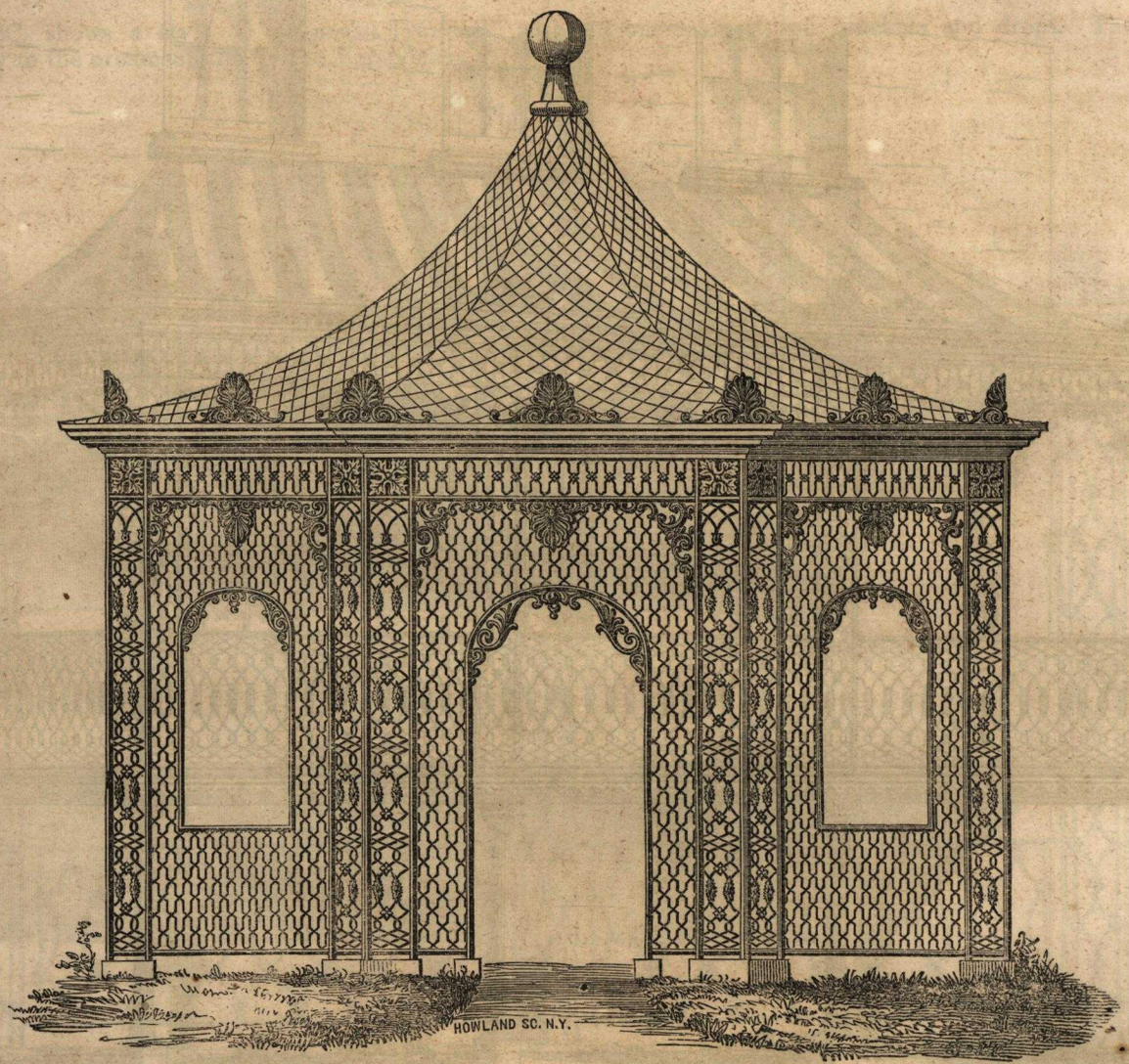


CHAPTER X.

SUMMER-HOUSES.

AIRY Summer-houses, dotting verdant lawns, are spots so attractive that a rural residence, well appointed, is sure to have them; and, as they are essentials in ornamentation of grounds, so it is necessary and proper that they should in themselves be ornamental. No material is so suitable for making them as the wrought-iron work of which we here present an example:

Fig. 77.



In this design, the octagon form of Summer-house is exhibited. They can be made square or round, plain or elaborate. In ordering, purchasers will accommodate us by sending ground-plans, with size and height, and by stating whether they desire plain or elaborate designs. Immediately upon receiving these items of information, we shall be able to send, in return, accurate estimates of cost, and other particulars, if desired.

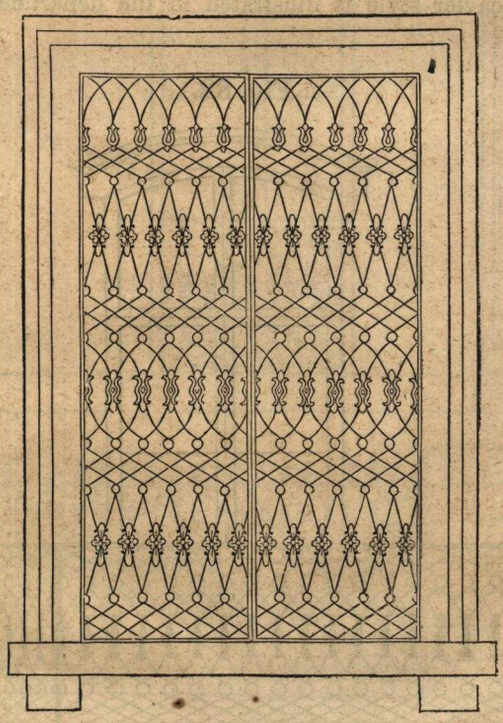
CHAPTER XI.

WINDOW GUARDS.

THE construction of Window guards, Gratings, and similar appliances, is one of the most extensive and successful departments in the manufacture of Woven Iron. For these purposes this fabric combines many excellent qualities. It does not obstruct the light, is an ornament wherever employed, and at the same time is sufficiently strong for security. Conservatories cannot be adequately protected by other means than an exterior wire netting; with this fixture they are perfectly secure from breakage. The ornamental windows of churches may be secured against damage by the use of these wire-guards. Gratings for stores, dwellings and steamers are readily made of any required size of wire. Work of this style made of half-inch rods is capable of resisting any degree of hard usage; but the smaller sizes are woven with greater facility, and are equally serviceable where great strength is not required. They are admirably calculated for protecting the windows of Lunatic Asylums, admitting air and light, avoiding all appearance of a prison or place of compulsive confinement, and having upon the inmates a cheerful instead of gloomy influence, and yet preventing damage. Lighter styles will be found useful for the protection of hot-air flues, for drains, sky-lights, steps, door-work, and many purposes to which they have only to be experimentally applied to ensure entire satisfaction. Patterns Figs. 2, 17, 20 and 25 are peculiarly fitted for these purposes, and can be put up at the rate of fifty cents, to seventy five-cents per square foot. Prices vary for different styles, from forty cents to one dollar per square foot. The *Composite Railing*, in its various patterns, is admirably adapted for the uses we have indicated.

Fig 80 is a style of Window-guard in ordinary use:

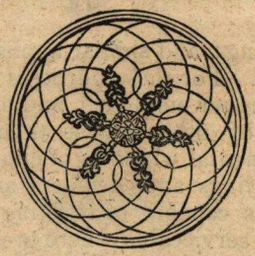
Fig. 80.



Prices.—The above style, $\frac{3}{8}$ in. Wire - - - - - - - 75 cents per square foot.
" " " $\frac{1}{4}$ " " - - - - - - - - 60 " " " "

Fig. 81 is a "Bull's-eye" for round windows:

Fig. 81.

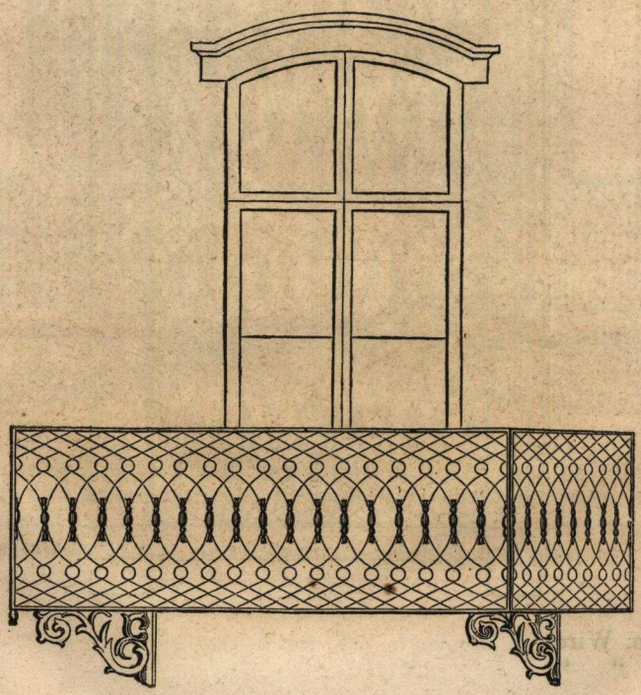


CHAPTER XII.

BALCONIES.

THE following illustration (Fig. 82) exhibits one of many patterns of Wire-work, which are admirably adapted for Balconies for public and private buildings. The use of wrought-iron for the construction of balconies obviates the difficulties of cumbrousness, cost and weight, which are often in the way of the purchaser. Figs. 17 and 20 show patterns for light work; while a heavier style is illustrated in the department of "Composite Railing," in Fig. 12C.

Fig. 82.

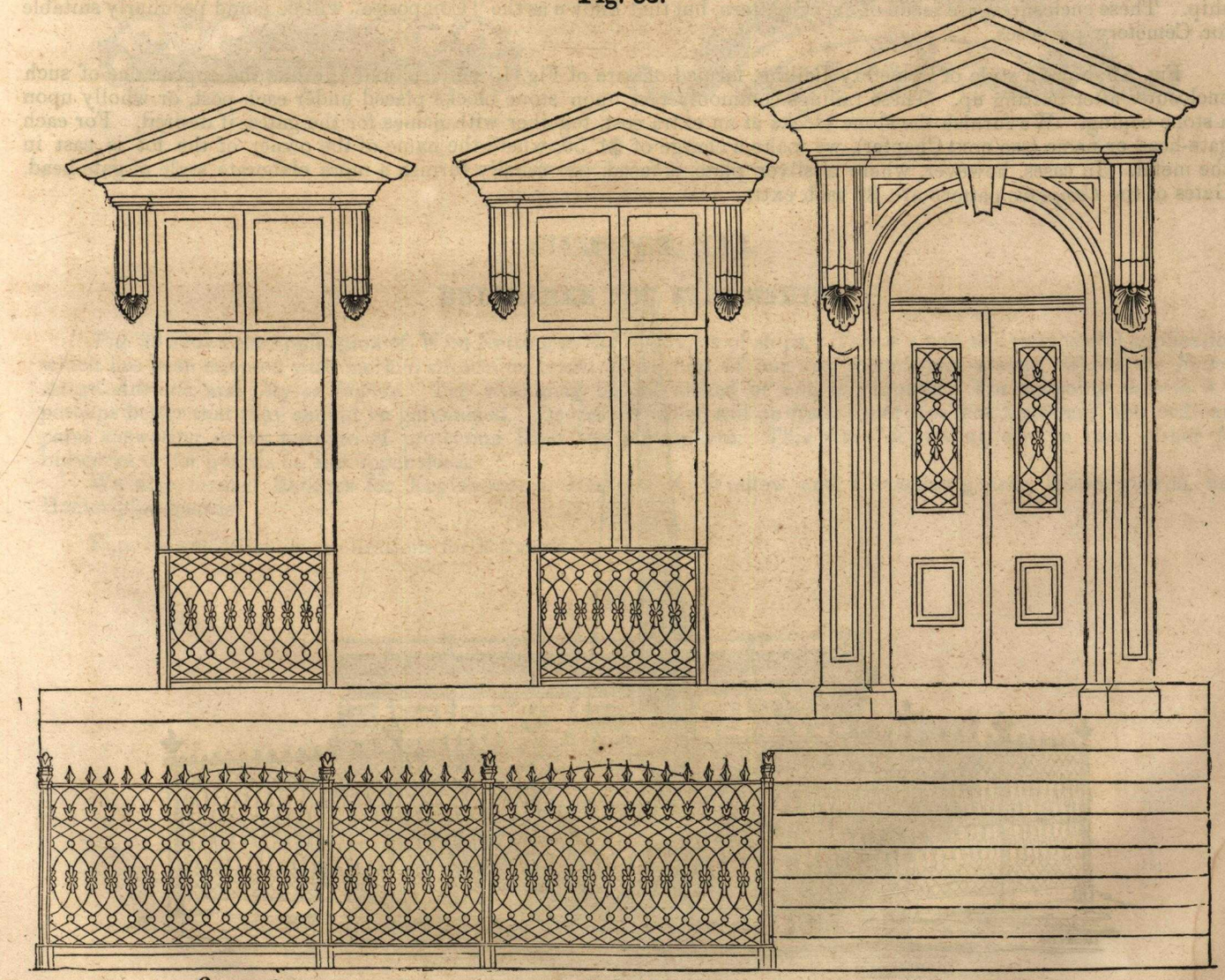


CHAPTER XIII.

AREAS.

THE styles shown in the following illustration (Fig. 83.) possess lightness, grace and beauty. The engraving exhibits *four* different applications of our work, viz.: 1. The Court-yard Fence, of Fig. 19 pattern; 2. Window-guards of Fig. 17 pattern; 3. Door-guards of Fig. 26 pattern; 4. A style of Lintels of cast-iron.

Fig. 83.



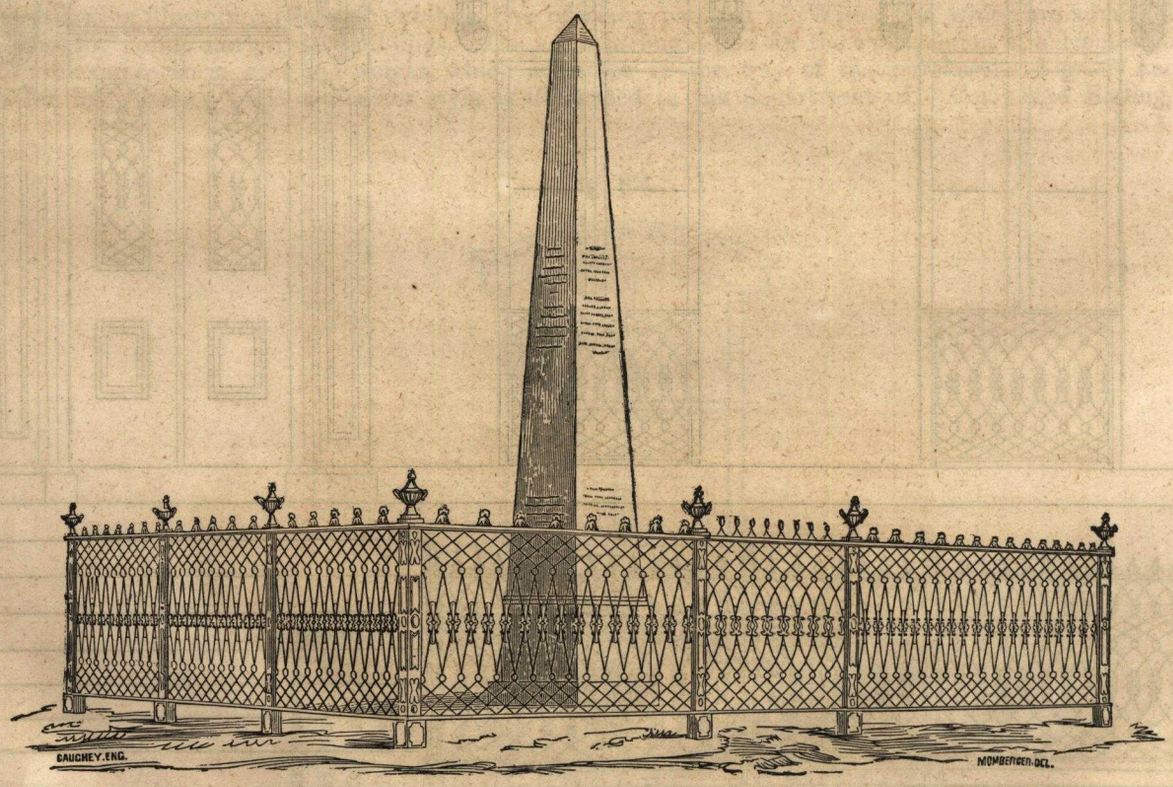
CHAPTER XIV.

CEMETERY ENCLOSURES.

CIVILIZED mankind in all ages of the world have bestowed great attention on the adornment of places of sepulture for their dead, and the marks of affection which render our Cemeteries so agreeable and inviting to the eye, may be traced to causes which founded the mighty monuments of old. Yet the modern testimonial of respect and affection for the departed differs from the ancient, in the substitution of well-arranged grounds and tasteful appliances, in place of cumbrous monuments. Modern ingenuity has taxed itself to discover means for adding to the charms that our Rural Cemeteries possess. No effort in this direction has been more successful than that which accomplishes at once the security and elegance of our final resting-place. The enclosures in use at Greenwood, Laurel Hill, Mount Auburn, the Congressional Grounds at Washington, Greenmount, Baltimore, Cypress Hills, New York Bay, and elsewhere, are noted for the beauty of their pattern and finish, and the substantial character of the workmanship. These enclosures are made of every pattern, but that known as the "Composite" will be found peculiarly suitable for Cemetery purposes.

Fig. 84 shows a style of Cemetery Railing, formed of wire of Fig. 15 pattern, and exhibits the appearance of such enclosures after putting up. These railings commonly rest upon stone blocks placed under each post, or wholly upon a stone coping. We furnish the stone blocks at an extra cost, together with names for the gates, if desired. For each gate-head or name (see next Chapter), we make a charge of $1 50, where the name of the owner of the lot is cast in the metal. In cases, however, where a silver plate is used, we usually furnish a more elaborate style of gate-head. Gates of the *Composite* pattern are $2 each extra:

Fig. 84.



Workmen are sent to put up the railing, when required, to any place in the vicinity of New York, or, where the contract will warrant it, they will be sent to any part of the United States.

CHAPTER XV.

GATE HEADS.

Figs. A and B show different styles of Gate-heads, intended to suit Gates in Cemetery Enclosures, with the name of the owner attached. The price of the style exhibited in Fig. A is $1 25, with name; of Fig. B, $1 50, with name:

Fig. A.

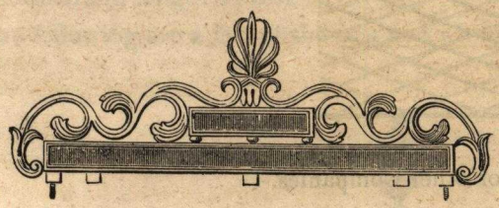


Fig. B.

CHAPTER XVI.

BULWARKS FOR STEAMSHIPS.

Fig. 90 shows the application of Wire Netting to the Bulwarks of ships. This is a new and very useful application which has been adopted with marked success on board of several of our new steamships—among others, the *Fulton*, *Arago*. *Adriatic*, and *City of Buffalo*. The wire may be galvanized or not, as required. For sea-going vessels it is perhaps better that they should be galvanized. On vessels which sail on fresh water it is not necessary, the ordinary paint answering every purpose of protection from the atmosphere. This style of netting can be used either for bulwarks or for guards on the upper deck.

We also furnish Railings for Engine-rooms, Mess-rooms, Window and Hatchway guards, Heater guards, and Heater-pipe guards.

Figs. 90 and 91 show applications for Bulwarks:

Fig. 90.

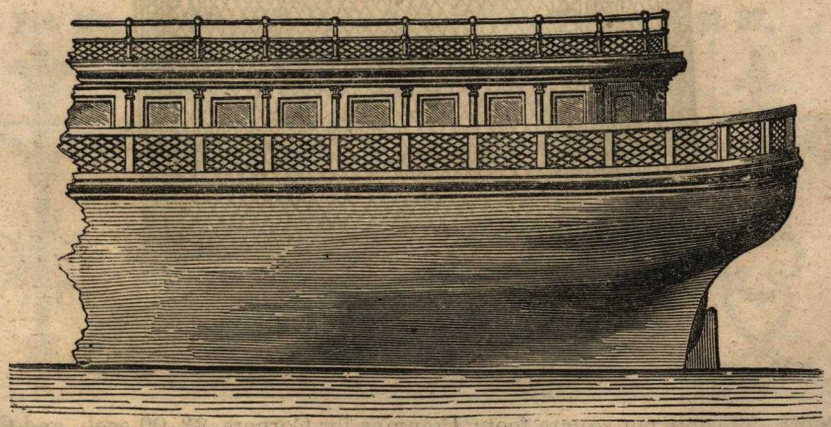
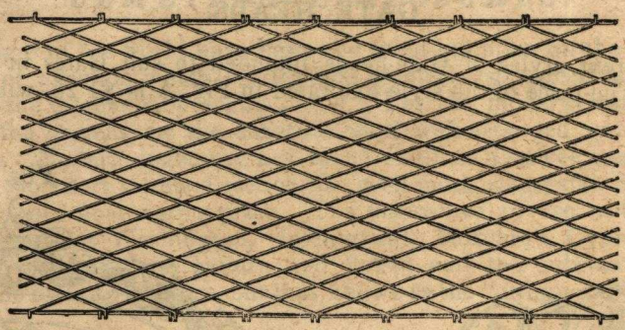


Fig. 91 shows the Bulwark Netting on a larger scale than Fig. 90.

Fig. 91.



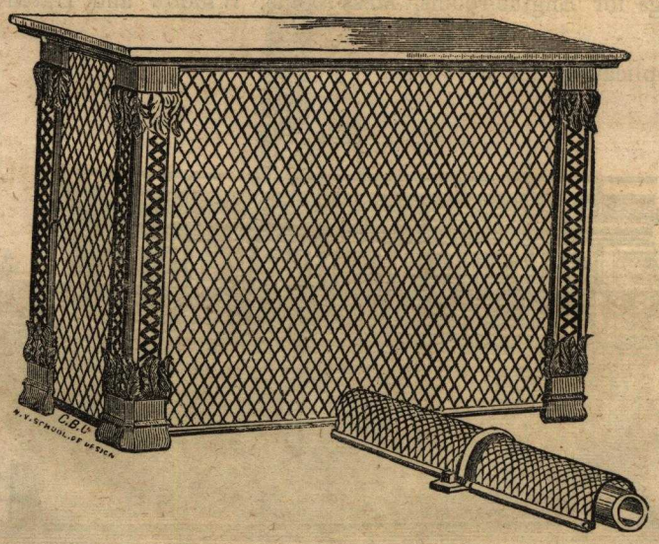
Contracts entered into with Steamship or other Companies.

CHAPTER XVII.

HEATER-GUARDS FOR DWELLINGS STORES AND HOTELS.

A HANDSOME style of Heater-guard for use in Dwellings, Stores, or Hotels, for protecting Steam or Hot-water pipes, is shown in Fig. 92. We make numerous other patterns. Particular attention is called to this new branch of business :

Fig. 92.



Price.—For Wire-work, 50 cents per square foot; Columns for Corners, $3 00 each, and Columns for Ends, $1 50 each; Wire Pipe covering, 75 cents per lineal foot.

CHAPTER XVIII.

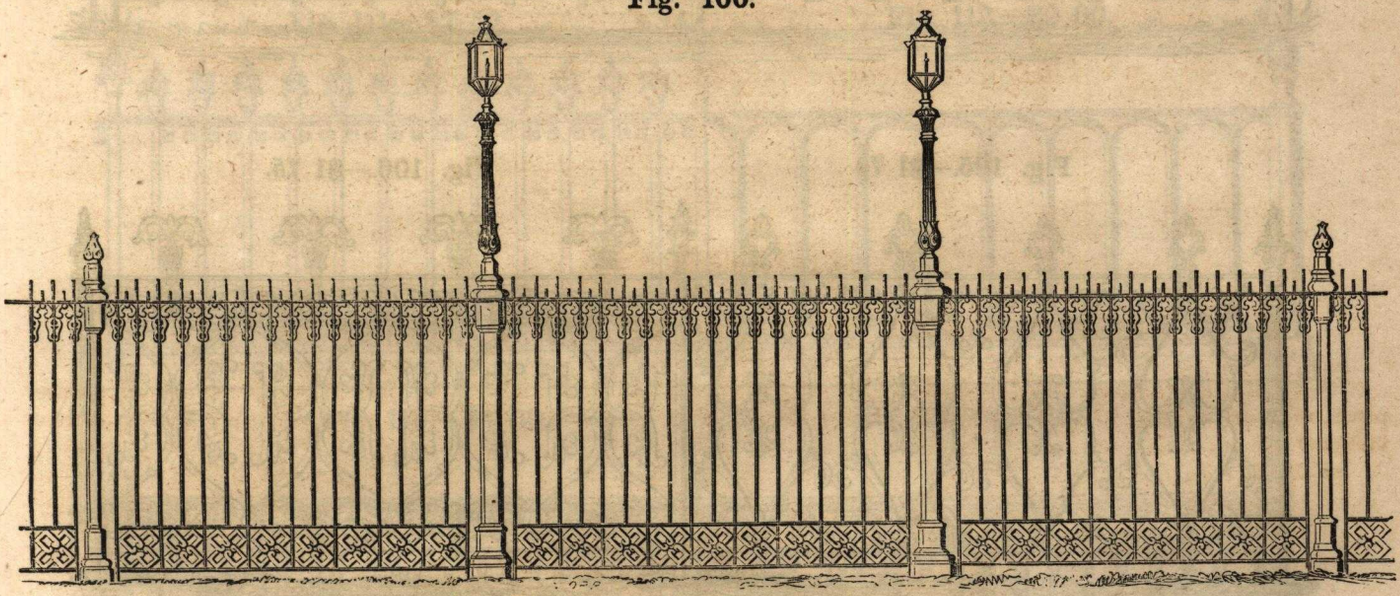
CAST AND WROUGHT IRON RAILINGS.

THE constant and increasing demand for Railings for various purposes, has induced the manufacturers to extend their business into this branch, which enable them to suit all classes and different forms of architecture, from the lightest to the most massive designs, embracing every pattern now manufactured in this city.

Particular attention is paid to the manufacture of ENTRANCE GATES for country villas, public grounds, &c.; among which will be found the heavy and massive gates at the Crystal Palace—each measures horizontally 66 feet—the largest gateways in the United States; also, the gateways of the Augusta and Waynesboro' Railroad Co., Ga., which measure in length 44 feet.

The following are a few of the cast and wrought iron designs of Railing for various purposes:

Fig. 100.



The above design is made of wrought and cast iron, and surrounds the outside of the Crystal Palace, $7 per foot. Price for Lamp Posts, as above, $25 each.

Fig. 101.—$1 37.

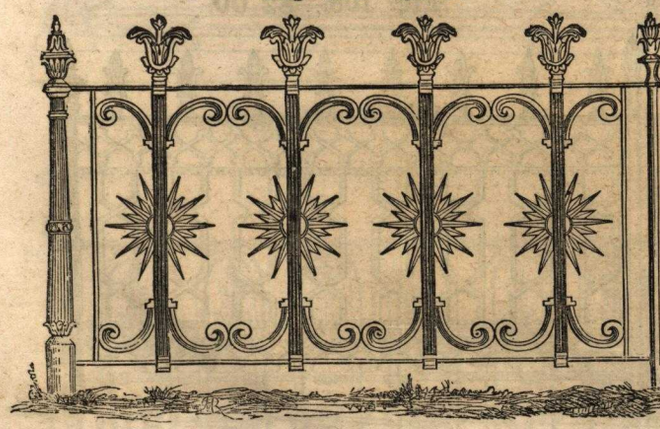


Fig. 102.—$1 37.

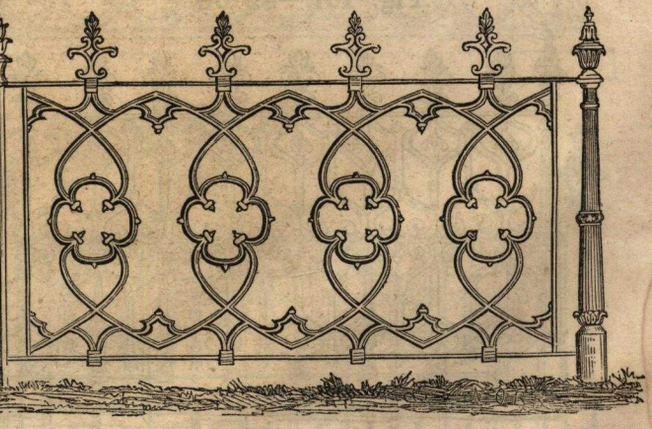


Fig. 103.—$2 25.

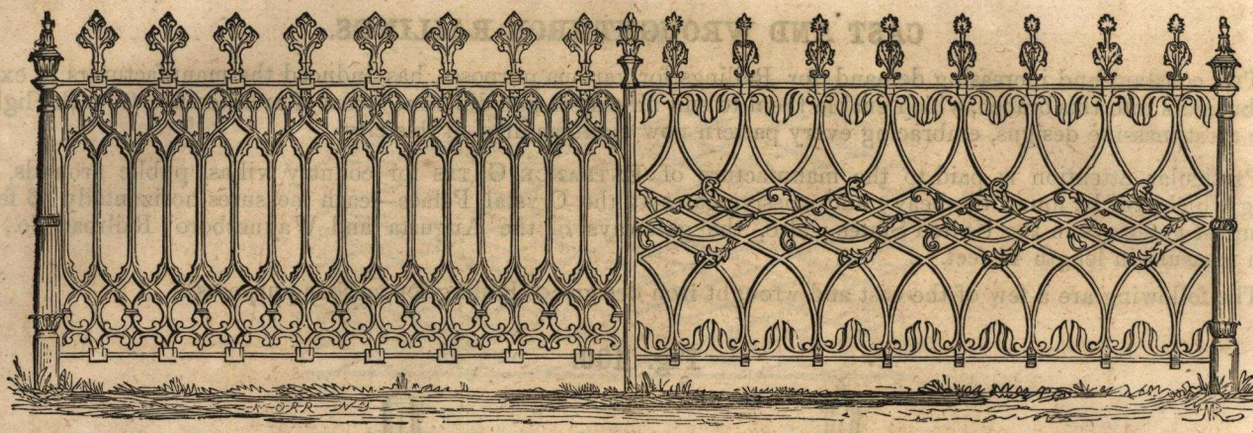


Fig. 104.—$1 75.

Fig. 105.—$1 75.

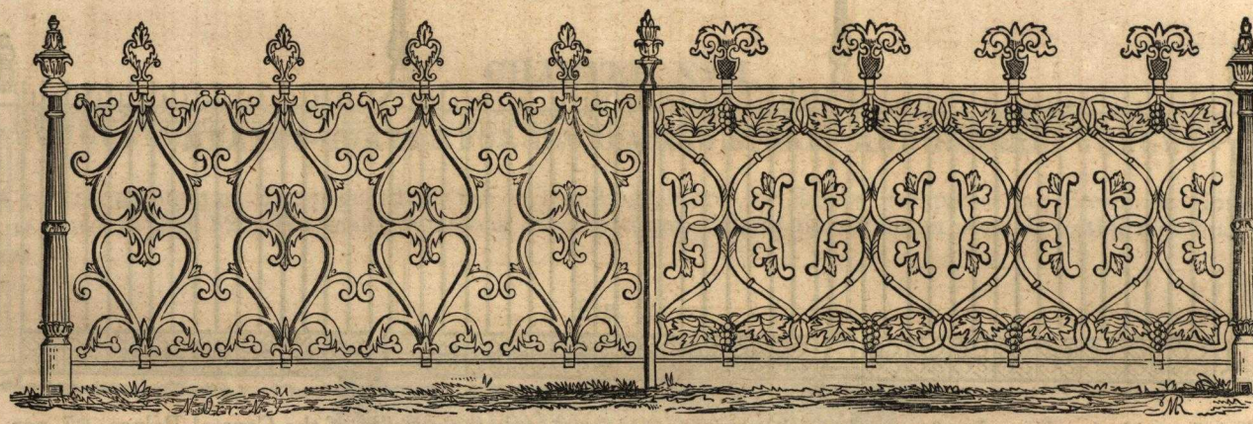


Fig. 106.—$1 75.

Fig. 107.—$2 00.

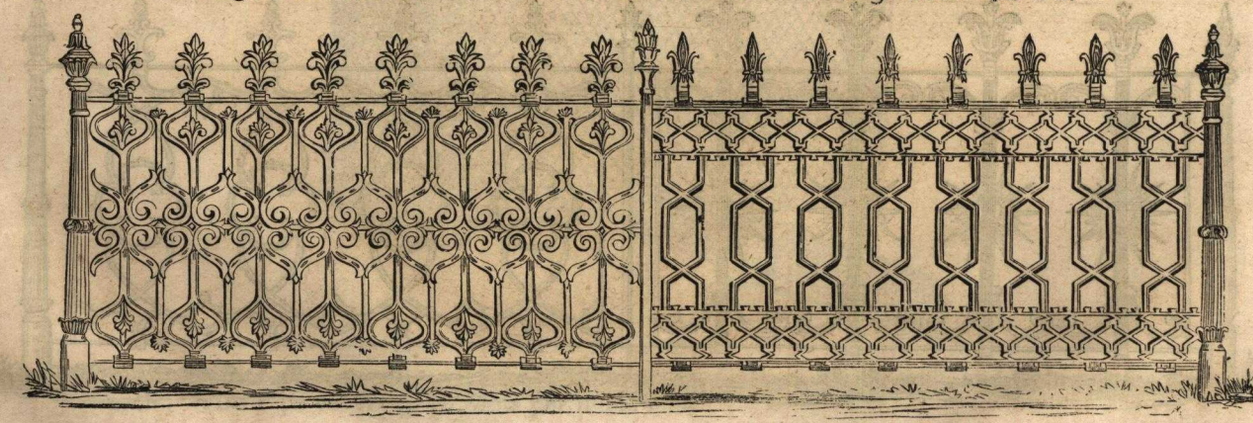


Fig. 108.—$2 00.

Fig. 109.—$2 00.

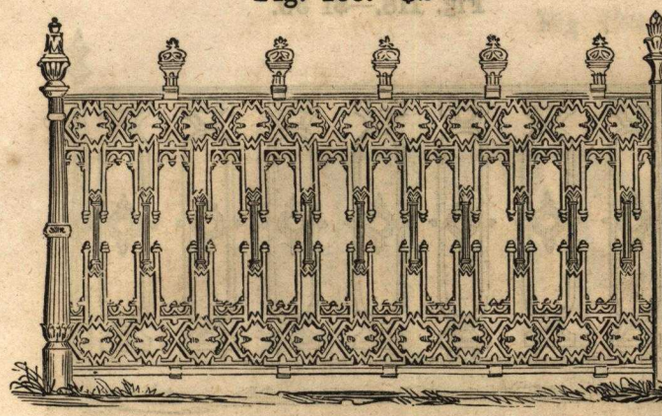


Fig. 110.—$2 00.

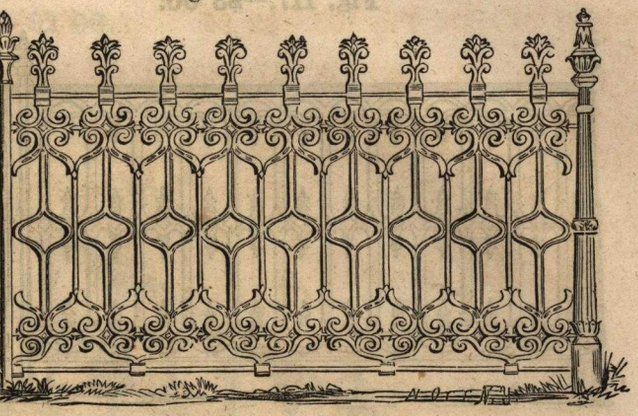


Fig. 111.—$2 50.

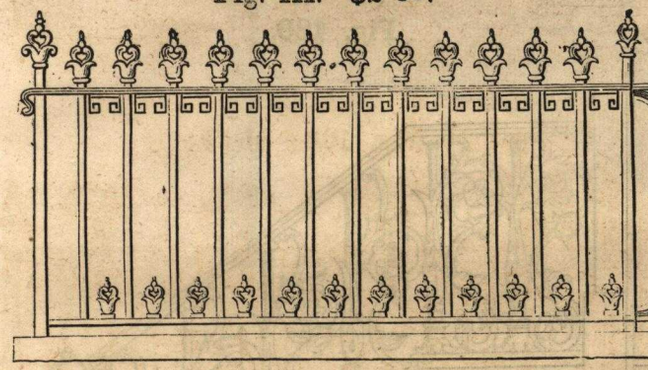


Fig. 112.—$2 00.

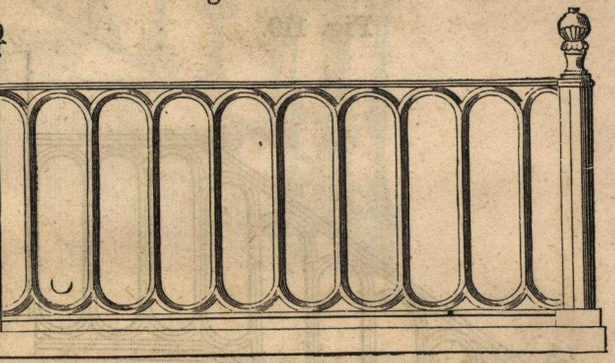


Fig. 113.—$4 00.

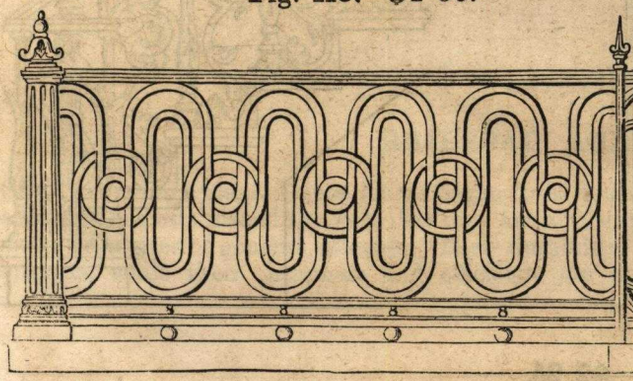


Fig. 114.—$3 00.

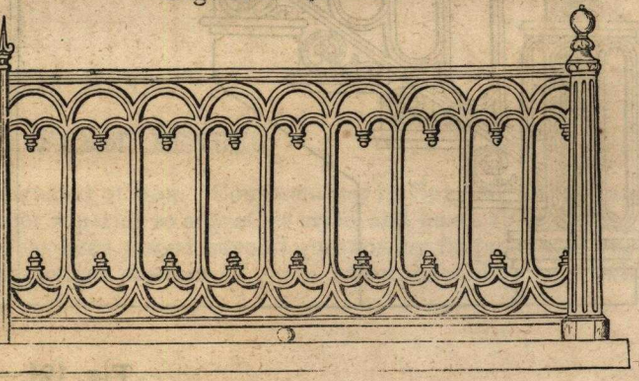


Fig. 115.—$2 00.

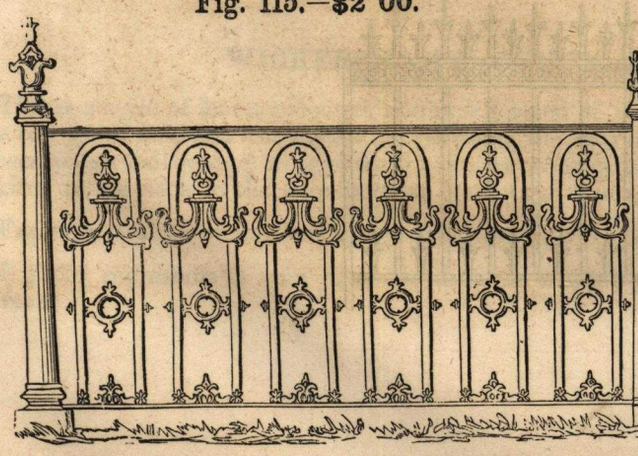


Fig. 116.—$2 00.

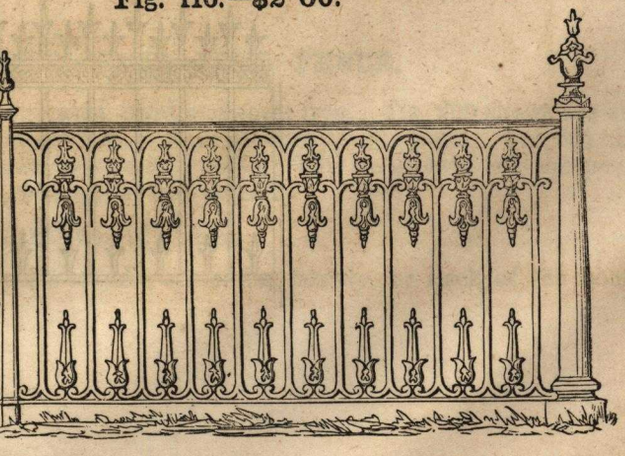


Fig. 117.—$3 00.

Fig. 118.—$1 50.

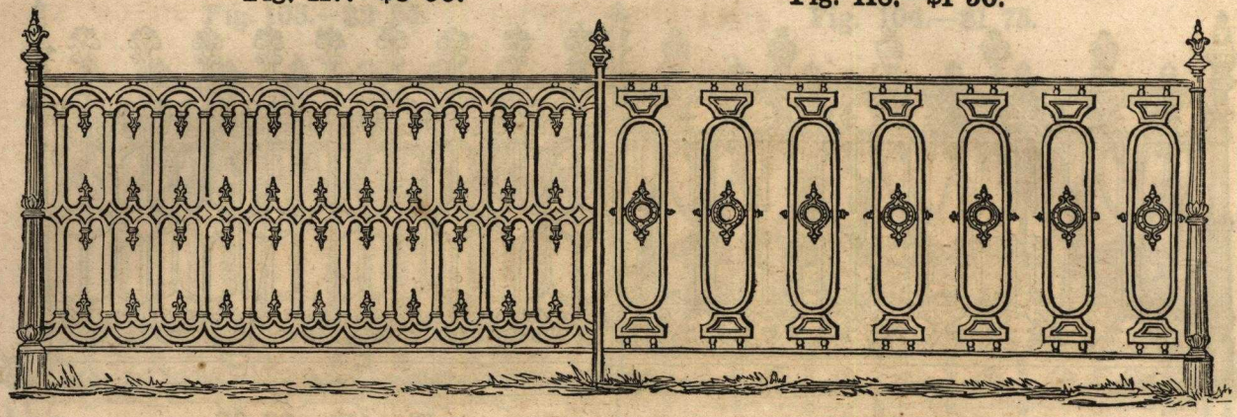


Fig. 119.

Fig. 120.

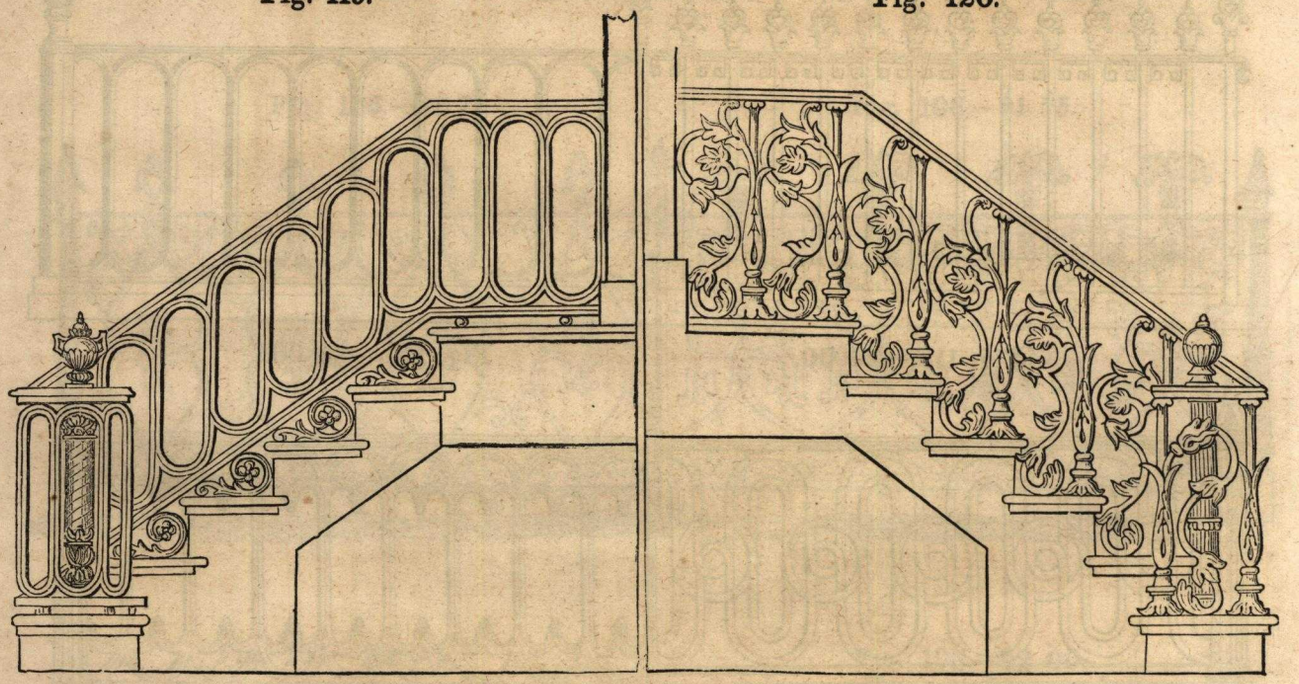


Fig. 121.—$2 25.

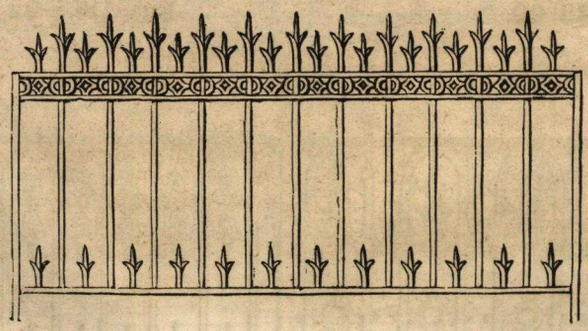
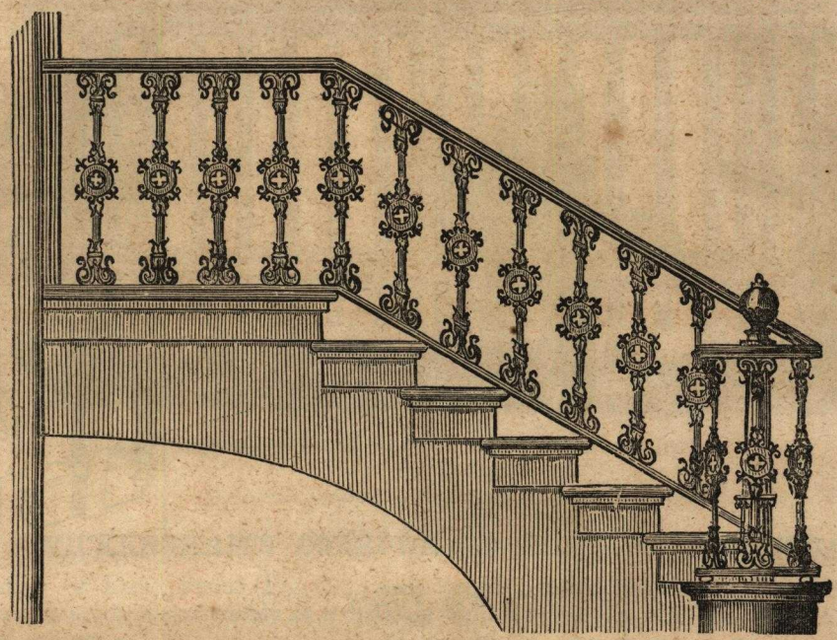


Fig. 120.—$2 00.



CHAPTER XIX.

RAILROAD AND FARM FENCES.

SOME years have elapsed since fences began to be constructed of iron. Continual use in England, France and the United States has established the fact, that they are altogether superior to any other style, and hence their employment has become a matter of general interest. Their durability has been placed beyond question by frequent and repeated experiments, while their cheapness and efficiency are no longer matters of mere experiment, but acknowledged facts.

WICKERSHAM'S CORRUGATED BAND IRON FENCE.

This is a style of fence, patented, which is formed of corrugated band and sheet iron. Fig. 600 shows the shape of the *corrugated post*, and the method of fastening the rails (either wire or flat rail) through the posts. Fig. 601 shows the *fence tie* (a small wedge) as applied to common wooden posts by screws or nails. This tie is used for the purpose of taking up the slack in the wire fence or the flat rail fence, where thin iron is used.

Fig. 600, Section of the Corrugated Iron used in the construction of Fences.

Fig. 601 represents a *wire fence tie*, used on wooden posts to take up the lax tension or slack of the common wire fence.

Price.—Corrugated Iron Posts, each - - - - - - - - - - 50 cents.

Fig. 600.

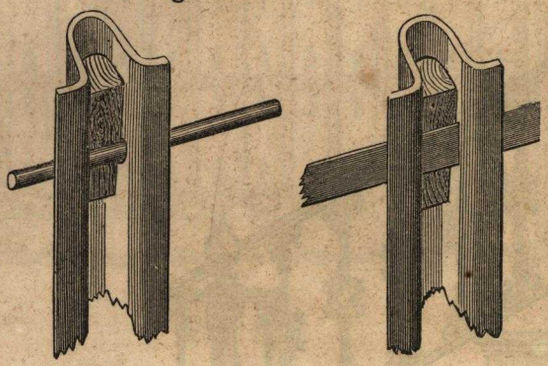


Fig. 601.

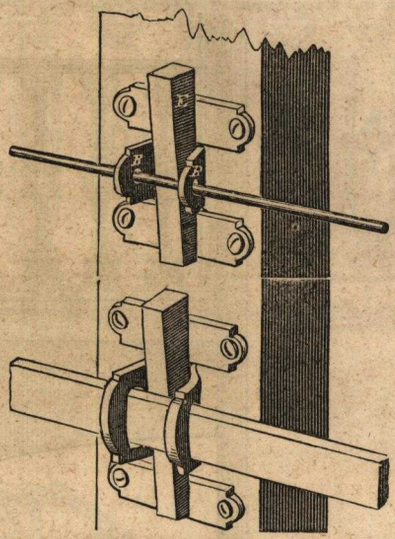


Fig. 602 shows four different styles of this Fence.

Fig. 602.

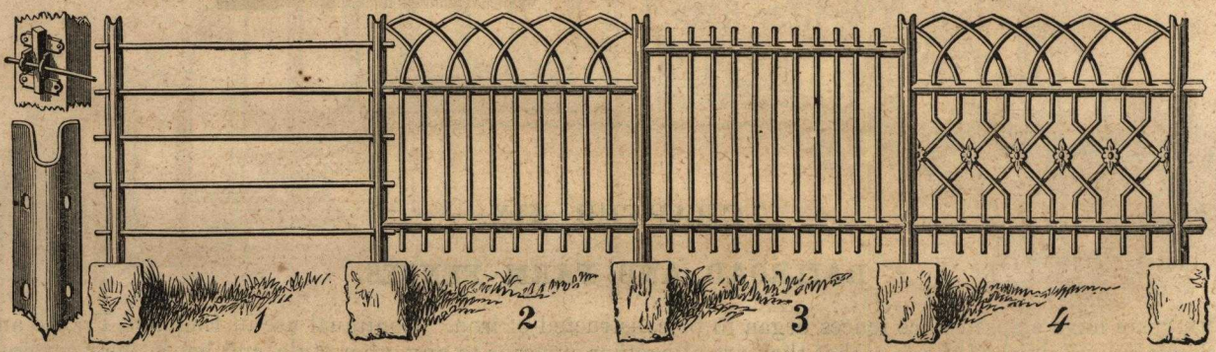


Fig. 1. CORRUGATED RAILROAD AND FARM FENCE. (See Prices for Flat Rail Fence.)

Fig. 2. CORRUGATED RURAL WIRE FENCE.

Prices.—Fig. 2, No. 1, $\frac{1}{4}$ in. Wire, 3 ft. 6 in. high - - - - - 40 cents per lineal foot.
" " 2, $\frac{5}{16}$ " " " " " - - - - - 50 " " "
" " 3, $\frac{3}{8}$ " " " " " - - - - - $62\frac{1}{2}$ " " "
" " 4, " " " 4 ft. " - - - - - 75 " " "

Fig. 3. CORRUGATED BAND IRON PICKET FENCE.

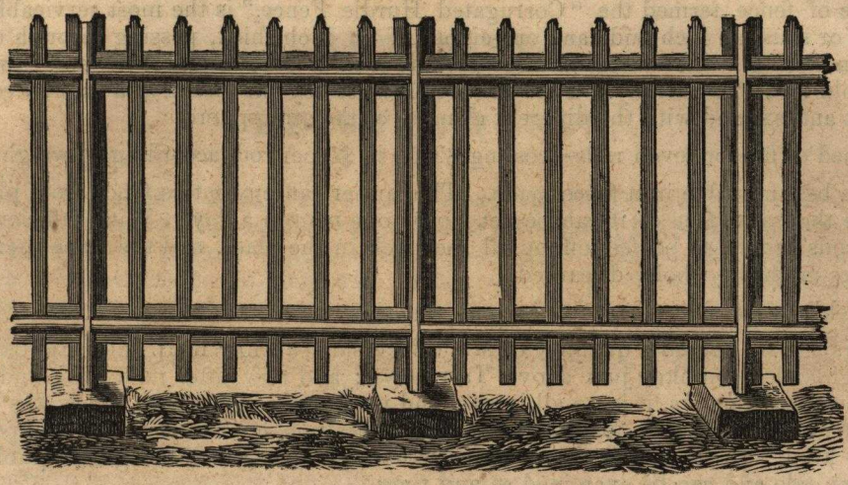
Prices.—Fig. 3, No. 1, 3 ft. 6 in. high - - - - - - - 50 cents per lineal foot.
" " 2, 4 " " - - - - - - 75 " " "

Fig. 4. CORRUGATED ORNAMENTAL WIRE FENCE.

Prices.—Fig. 4, No. 1, $\frac{1}{4}$ in. Wire, 3 ft. 6 in. high - - - - - 75 cents per lineal foot.
" " 2, $\frac{5}{16}$ " " " " " - - - - - 90 " " "
" " 3, $\frac{3}{8}$ " " " " " - - - - - $1 00 " " "

Fig. 603 shows a style of fence *with pickets,* termed the "Corrugated Band Iron Picket Fence." It is a very neat pattern.

Fig. 603.

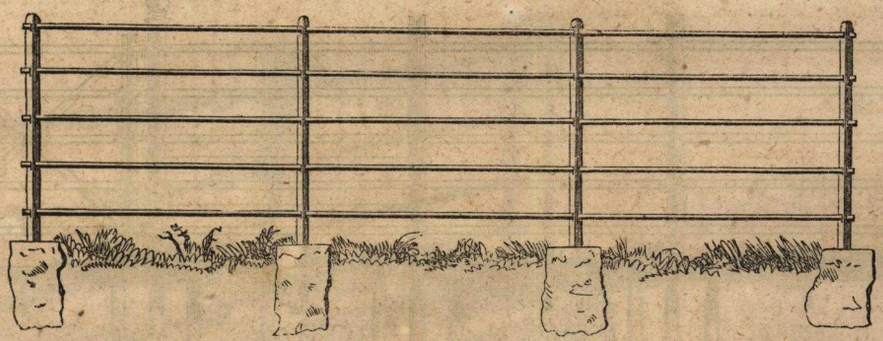


Prices.—From 50 to 75 cents per lineal foot.

WICKERSHAM'S CORRUGATED FLAT RAIL FENCE.

This is another style of Farm Fence (Fig. 604,) with *flat rails* instead of wires. This pattern is in some respects preferable to others, being much more visible at a distance than other styles, and less liable to sagging.

Fig. 604.



PRICES.—WITH CORRUGATED POSTS.

Fig. 604, No. 1,	5 Rails, 15 x $\frac{3}{4}$ in.	Corrugated Posts 12 feet apart, 4 feet high	$1 50 per rod.
" 2,	" " "	" 6 " " " " "	2 00 "
" 3,	" 1 x $\frac{1}{8}$ in.	" " " " " " "	3 00 "
" "	" " "	" " " " " with hurdles	4 00 "
" 4,	" 1 x $\frac{1}{4}$ "	" " " " " " "	5 00 "
	Additional Corrugated Post, each,		50 cents.

PRICES.—WITH ANGLE IRON POSTS.

Fig. 604, No. 5,	5 Rails, 1 x $\frac{1}{8}$ in.	Angle Iron Post, 1$\frac{3}{4}$ x $\frac{1}{4}$, 6 feet apart	$4 50 per rod.
" 6,	" 1 x $\frac{1}{4}$ "	" " " " "	6 00 "
	Additional Angle Iron Post, 1$\frac{3}{4}$ x $\frac{1}{4}$ in. each		1 00 "
	" Rail, 15 x $\frac{3}{4}$ " "		0 20 per rod.
	" " 1 x $\frac{1}{8}$ " "		0 50 "
	" " 1 x $\frac{1}{4}$ " "		0 75 "

WICKERSHAM'S CORRUGATED HURDLE FENCE

Still another style of fence, termed the "Corrugated Hurdle Fence," is the most servicable fence yet introduced. It is made of flat bars or slats, an inch wide and one-eighth of an inch thick, passing through corrugated posts placed six feet apart, and terminating at the bottom in three prongs, each a foot long, which enter the earth at right angles with the fence, and hold it stiff and steady. The rails are fastened by the means of a small wedge of wood, and have ample play to contract and expand with the different changes of the atmosphere.

This fence is formed of five or seven rails—costing $2 50 to $5 per rod, according to weight and quality.

It is decidedly the best movable iron fence made. The farmer can move this fence from place to place with little labor or trouble. One thousand feet of it can be set up by one man in a day. With sufficient fence of this sort to inclose a plot twenty rods square, to be fed off by all the stock in the place, and the fence then moved to a new plot, we believe inside fences might be wholly discarded.

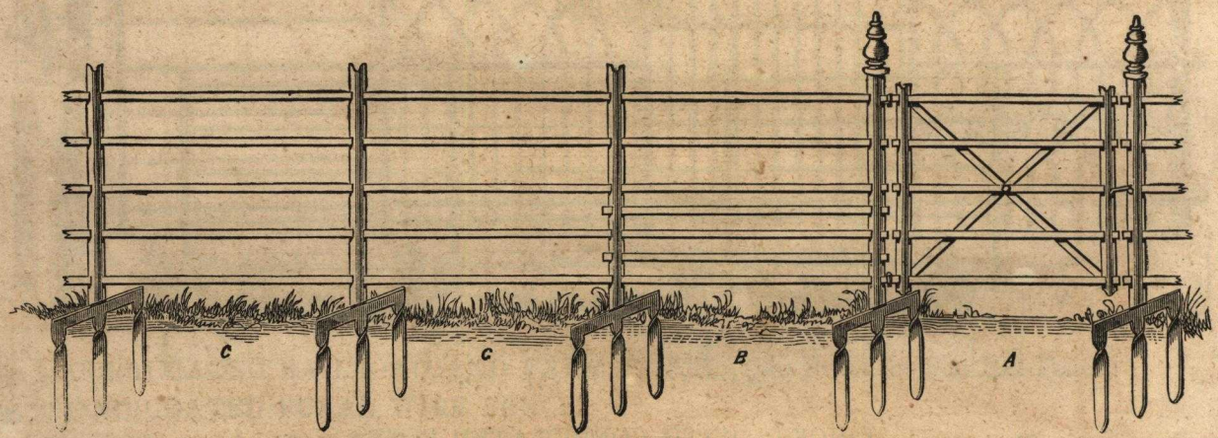
General J. W. Webb, of the *New York Courier and Enquirer*, indorses this fence in the strongest terms.

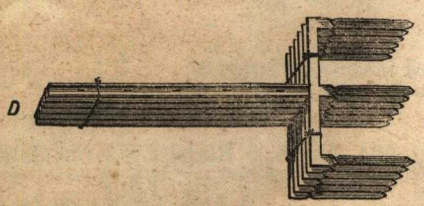
"Nearly five years ago we caused a quantity of Mr. Wickersham's FLAT RAIL IRON FENCE to be put up as a road fence, on the old Highland Turnpike, just above Tarrytown; and now, after its having undergone the test of our severest winters and hottest Summers, it is, to all intents and purposes, as perfect as it was the day it was completed. Not one panel of this fence has varied an inch from its original position, nor has there been expended upon it one hour of labor or care of any kind. In short, it is the very perfection of a fence; and, being on a public highway very much traveled, it tells its own tale and can be examined at any time.

"We have been familiar for years past with every species of fence invented for our Western prairies, and we feel no hesitation whatever in saying, that for economy, convenience and durability, that which Mr. Wickersham calls his Corrugated Flat Rail Iron Hurdle Fence, is without a rival."

The following illustration (Fig. 605,) shows the different parts of this Fence, and the manner of packing for transportation.

Fig. 605.





A.—Gate.
B.—Seven-rail Fence, for sheep, &c.
C.—Five-rail Fence, for cattle.
D.—Corrugated Iron Posts, packed for transportation.
E.—Flat Iron Rails, packed for transportation.

Prices.— 5Rails, each 1 in. x ⅛ in. Posts 6 ft. apart - - - - - - - $4 per rod
" " " " " " - - - - - - - 5 "

CHAPTER XX.

THE WIRE FENCE.

In the manufacture of this style of fence, we are now introducing hard, bright wire, in lieu of the annealed wire formerly used. Experience shows us that bright wire holds its own better, keeps its lines straighter, and that, being a lighter material, it is not so liable to show small bends as the annealed. Moreover, it is evident that *the only true way* to make *wire fence* is to use this bright, hard wire; a fact which is proved by the excellence of the English wire fences. In that country there are some hundreds of estates enclosed by wire fences, made with horizontal wires stretched from straining pillars placed seventy-five yards apart. The style of fence which we manufacture is considered to be an improvement in many respects over the English,—but nevertheless, if parties prefer the English style, we furnish materials for it, and put it up where required.

The fences are made with horizontal wires, tightened by means of an effective arrangement, so that *the whole tension of the rod is obtained.* The posts are furnished with contrivances of different patterns for security in the ground. The size of the rods varies in accordance with the wishes of the purchaser, or the uses for which the fence is designed. No ordinary domestic animal will break through fences of considerably less than ¼ inch wrought wire, while still larger sizes may be used with the same facility if required. In the partial and hitherto unsuccessful application of wire fences to farm purposes, a great defect has been the want of competent manufacturers, and the loss of resistance occasioned by a lax tension of the wires. These difficulties have now disappeared, and iron fences bid fair to be the future boundaries of every domain.

The explanation of the cuts is an extract from the specifications whereon the patent was granted. A short examination only is necessary to perceive its simplicity and adaptedness to the required purposes. The posts are simply driven into the ground.

Fig. 1.

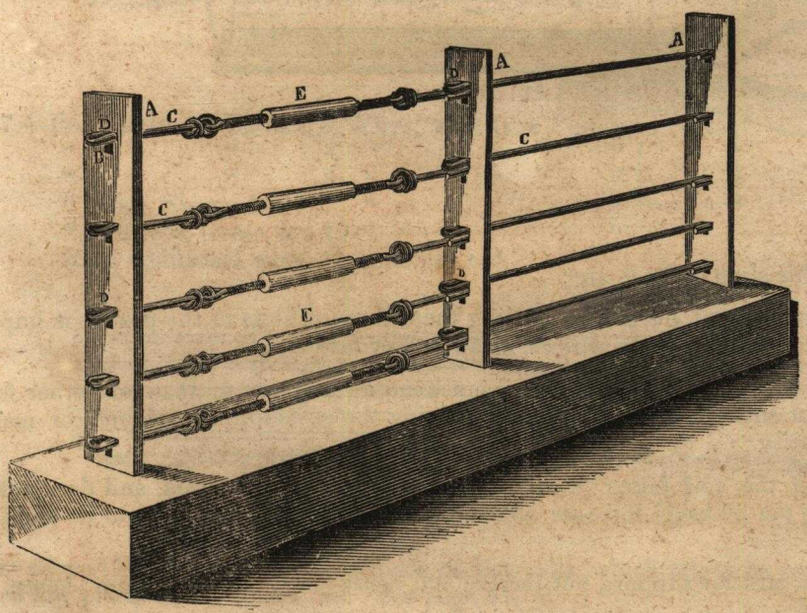
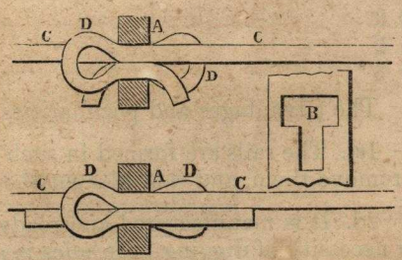


Fig. 2.



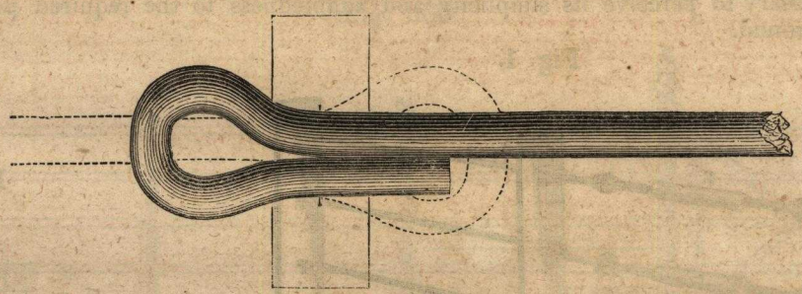
The accompanying engraving is a perspective view (Fig. 1), and a vertical section through one post (Fig. 2), of the Patent Wire Fence. The same letters refer to like parts. A represents the posts, which may be flat bar iron, having in them any suitable number of T-shaped mortises, and which may have either end of the mortises up; or the mortises may be square or oblong, as seen at B. The rails, C, may be made of round, flat, or any other shaped bars

or rods, either in whole or in part. Said rails have loops turned upon both of their ends, and when they are to be inserted in the post hole, B, they are to be slipped through the hole far enough to escape the turned end of the loop, and then turned half round and drawn back, which will bring them to the position shown in Fig. 1, in which position they cannot be turned to draw them out; the loops fill up the entire space, one resting upon the other, and the shoulder in the mortise will not admit of their being raised. The rails cannot be withdrawn until slipped back, and then turned half round. To prevent this being done, the loop is bent out on both sides of the posts, as seen at Fig. 2, and the rail then cannot be drawn out on either side. By this means a rigid and strong fence is made with few pieces, little labor, and at a low price; only single posts are used, and no keys, bolts or wedges are required—the mortises and loops are substitutes for the keys and ties in other wire fences.

At suitable distances on a line of fence, say at about every one hundred yards, more or less, there are placed screw buckles, E, for letting out and screwing up the fence, to compensate for the expansion and contraction of the metal, if necessary; but in practice it has been found that the elasticity of the loops, upon which the horizontal strain is exerted, is nearly quite sufficient for such expansion or contraction. The screw buckles are of more essential service in putting up the fence and equalizing the strain upon the posts when put up.

The posts, rails, &c., are all prepared by machinery, and may be made of any size, shape and material, packed up into fagots for easy handling and transportation, and can be set up by any person who has the least skill in fence making. The posts are usually set about 16 inches into the ground, and made tight in their places by ramming gravel or stone alongside. The improvement is certainly a most excellent one in wire fences, one that offers superior advantages to any other. For farmers it is certainly an important improvement. The wire used for the rails is a quarter of an inch in diameter—smaller is not recommended, as cattle are not liable to notice a smaller size. The posts are planted about 12 feet apart, and the height is about 4½ feet.

The following cut exhibits the natural size of the wires most commonly used in farm fences, and the manner in which they pass through and support the post, and are supported by it.



The advantages and peculiarities of this style of fence are:

1st. The rails are formed in such a manner that by simply passing them through slots in the post, it is impossible to remove them, and this without the use of bolts, wedges, screws, or any other fastening.

2d. It is manufactured and ready for use before shipment. It is much more easily put up than any other fence, as the necessity of digging post-holes is almost entirely obviated; simply driving the posts into the ground, or making a hole with an iron bar, being sufficient security.

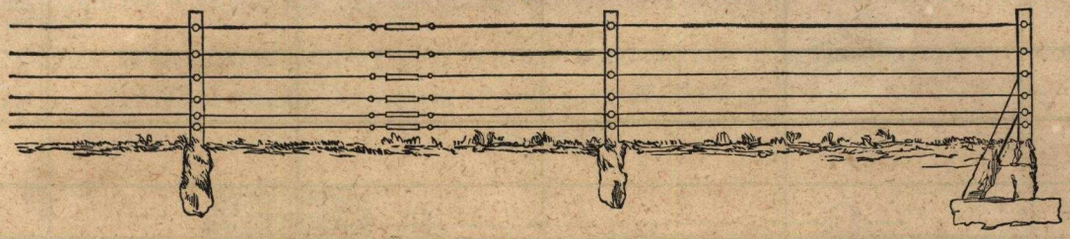
3d. The rails being made straight and the coil taken out, if one breaks it is easily replaced, and does not recoil into its former shape, thereby endangering the limbs of domestic animals that might get entangled in its folds, as in other varieties.

4th. The rails do not depend upon the post for support, but receive and resist the strain upon them; hence, if any posts should break, the fence remains good.

Manner of Putting up this Fence.—It is absolutely necessary that the straining pillar, or starting post, of wood or iron, at the extreme ends of the fence, should be perfectly firm, as the wires cannot otherwise be made tight. Commencing from a tree is recommended, if possible. Plant the posts 12 feet apart, hook in the rails, and at the distance of 150 feet place a screw on each wire. Place the next set of screws at the distance of 300 feet, and so continue.

The wire used is one-fourth inch in diameter. The posts are formed of one piece, 1½ in. by ⅜ inch. Height of fence, 4½ feet.

Fig. 606.



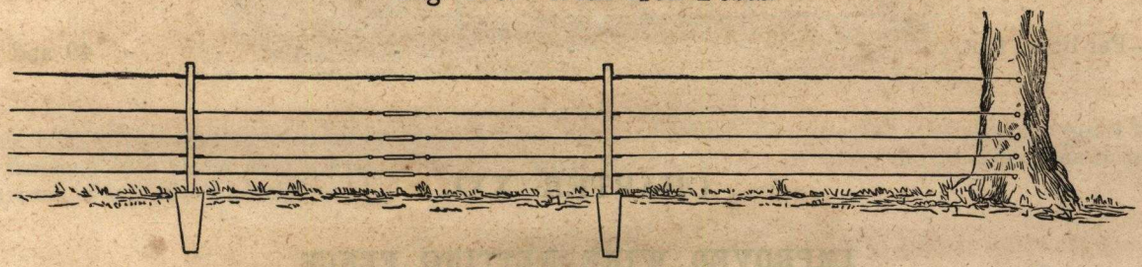
The above engraving (Fig. 26,) shows the Farm Fence with wooden posts. The eyes upon the end of the rail, which, with iron posts, are merely passed through the mortice or slot, are here bolted to the post.

PRICES PER ROD.

Fig. 606.—5 Rail Fence, 4ft. 6 in. high, with screws, exclusive of posts	$1 33
7 " " " " " " " " " "	1 77

Each additional wire, 20 cents per rod.

Fig. 607.—With Iron Posts.

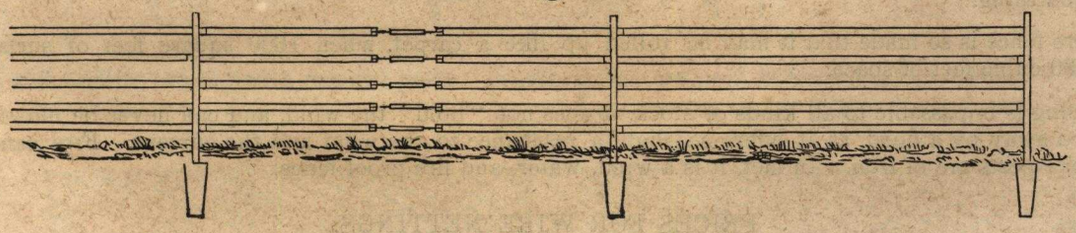


PRICES PER ROD.

Fig. 607.—For Cattle and Horses, 3 Wires, with Iron Posts and Screws	$1 66
" " " 4 " " " "	1 84
" " " 5 " " " "	2 00
" Hogs, Sheep, &c. 7 " " " "	2 40
" Turkeys, Geese, &c. 10 " " " "	3 00

Each additional wire, 20 cents per rod.

Fig. 608.

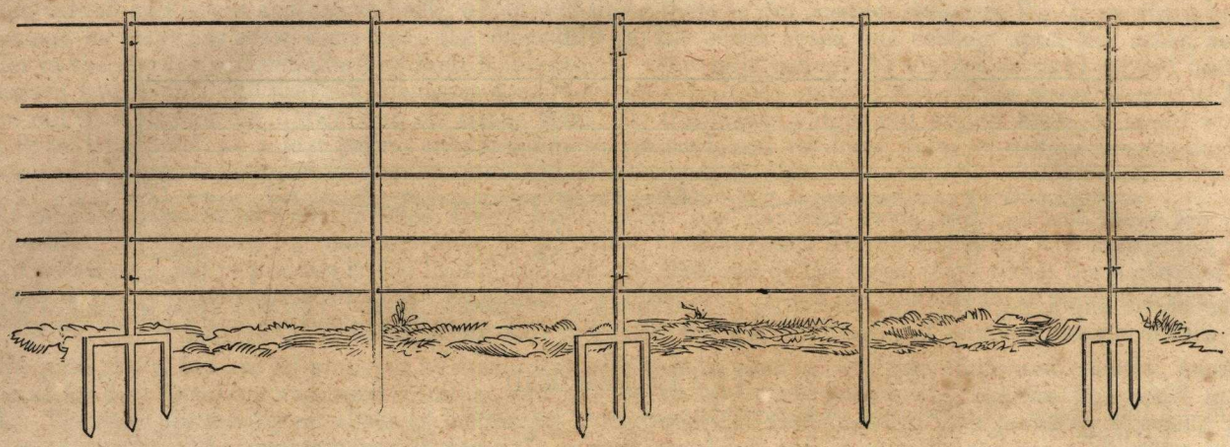


The above (Fig. 608,) is a pattern made of flat rails, which might be preferred by some. It can be furnished at nearly as low prices as the round rail. See page 51.

IRON STRAINING PILLARS.

Iron Straining Posts, needed only for the commencement, corners, and ending of the Fence - - $5 00 each.

Fig. 609.



The above (Fig. 609,) is the style of the English Hurdle Fence, which is firm and substantial, and at the same time easily taken up and transported to other enclosures.

Prices.—Per lineal foot, - - - - - - - - - - - 40 and 50 cents.

CHAPTER XXI.

IMPROVED WIRE NETTING FENCE.

ADAPTED FOR THE USE OF RAILROADS, FARMS, PRAIRIE LANDS AND LAWNS; ENCLOSURES FOR HENNERIES; TRELLIS FOR GRAPE-VINES, ARBORS AND ARCHES; PROTECTION FOR WINDOWS OF CHURCHES, MILLS AND WORKSHOPS.

Wire fences possess advantages over others, in that they disfigure no landscape, obstruct no lawn; and that they enhance, rather than destroy, the symmetry and beauty of ornamental grounds. Needing few or no repairs, pulling heavily upon no man's purse, and susceptible of receiving the most tasteful forms, the wire fence may justly be voted a good thing.

The entire fence is so made that it may be rolled up like a carpet, when 1600 square feet of surface may be contained in 30 cubic feet of space.

This fencing is impassable to all kinds of stock, it does not "hold" the wind, and can never be blown down in a gale or washed away by a flood, as it offers so slight a resistance to the wind and the current. Fire cannot burn it down, when the posts are of iron. In fact, it is a wind, water, and fire proof fence.

PRICES FOR WIRE NETTINGS.

No.	1,—3 ft. 9 in.	high,	3 in.	mesh,	4	lateral wires	No.	10,	body wire	No.	14,	weight	10 lbs.	per rod,	16½	ft.	$2	25
"	2,— " "	"	"	"	2	"	"	"	"	"	"	"	9	"	"	"	2	00
"	3,—2 ft. 9 in.	"	"	"	3	"	"	"	"	"	"	"	7¼	"	"	"	1	75
"	4,— " "	"	"	"	2	"	"	"	"	"	"	"	6¾	"	"	"	1	50
"	5,—1 ft. 4 in.	"	"	"	2	"	"	12,	"	"	"	"	4¼	"	"	"	1	00
"	6,—3 ft. 9 in.	"	6 in.	"	4	"	"	"	"	"	12,	"	10	"	"	"	1	50
"	7,— " "	"	"	"	2	"	"	"	"	"	"	"	8	"	"	"	1	25
"	8,—2 ft.	"	1¼ in.	"	2	"	"	14,	"	"	18,			"	"	"	2	50

Nos. 1, 2, 3 and 4, for Fences, are admirably adapted, proof against sheep, hogs and dogs, and more especially serviceable against chickens; the long sought for *desideratum* in protecting *Poultry Yards*, Gardens, and the like.

No. 5 is used for all kinds of Trellis-work, as well as for low fences, and surmounting fences.

Nos. 6 and 7 are the most practical barriers against cattle, horses, sheep, &c.—Emphatically, a RAILROAD and PRAIRIE FENCE.

No. 8—Nettings for window protection; used in church windows, and mills, factories, and workshop windows.

The following illustrations explain the manner of putting up the Nettings.

Fig 401.

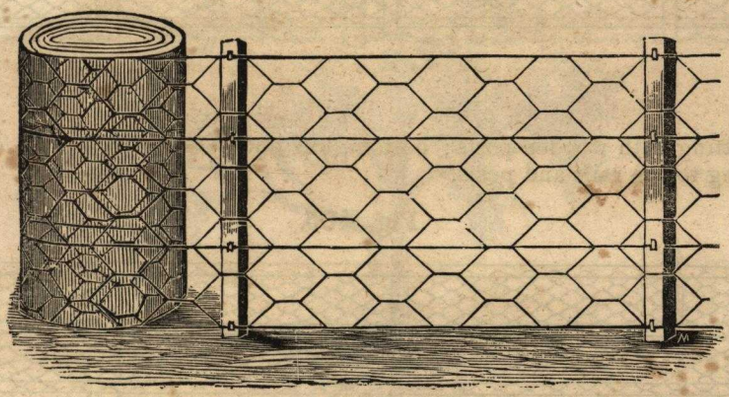


Figure 402.—Wire netting with iron posts and stone blocks. When iron uprights are used to support the netting, they are fastened into stone blocks with brimstone; when wooden blocks are used, the posts are driven into cuts or holes prepared in top of the blocks.

Fig. 402.

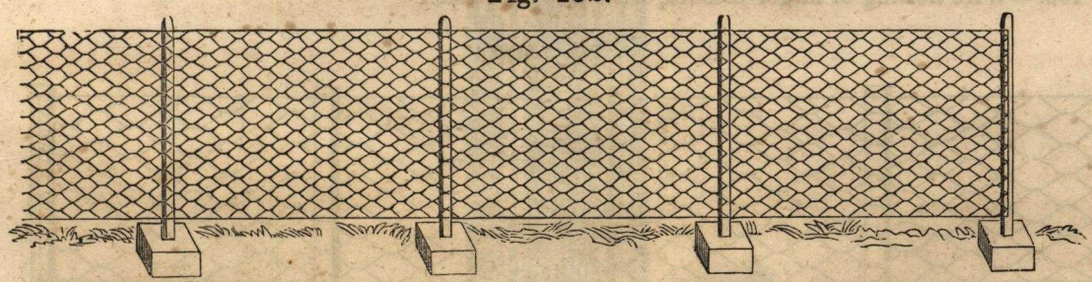


Figure 403.—Wire netting with wooden posts. Small staples are used in fastening the netting to wooden posts.

Fig. 403.

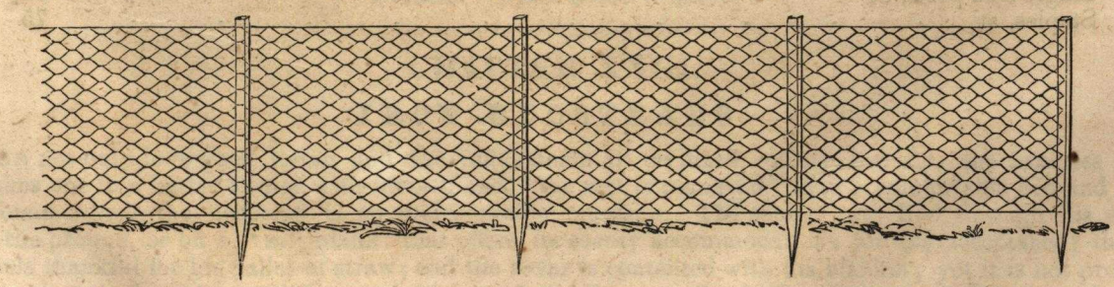


Figure 404.—Wire netting with wooden posts, and the rails bottom and top of wood.

Fig. 404.

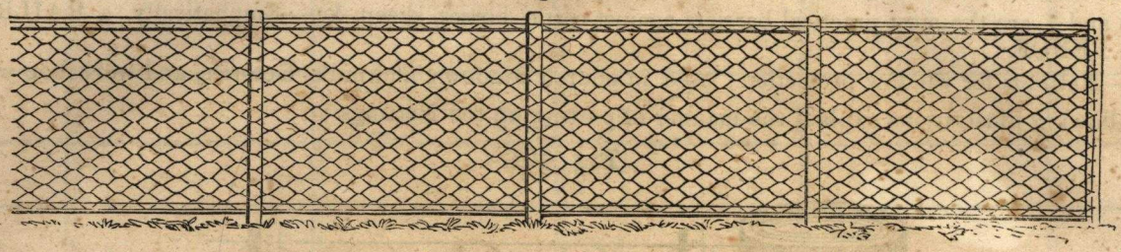


Figure 405.—Wire netting with wooden posts; bottom, top and intermediate rails, of wood. Small staples are used in attaching the netting to the rails and posts.

Fig. 405.

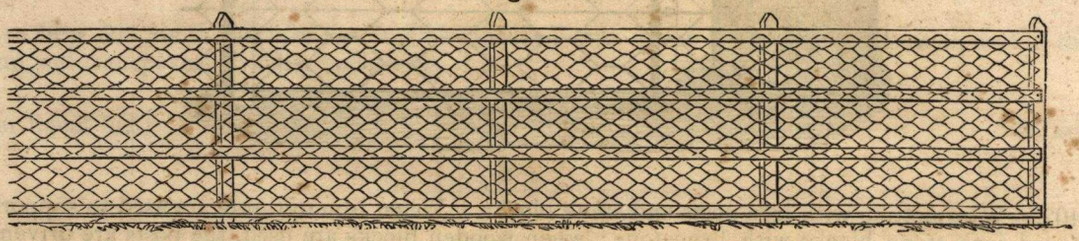
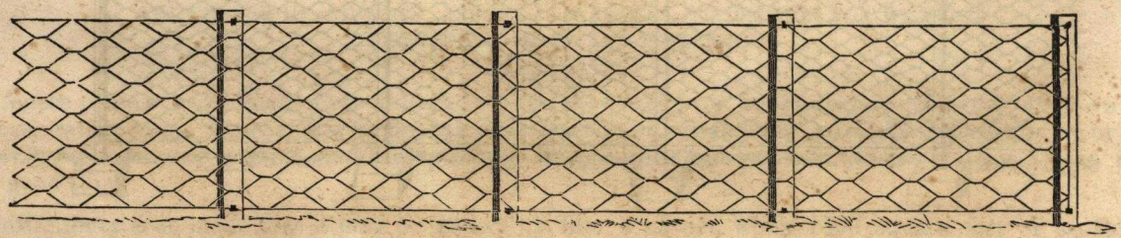


Figure 406.—Wire netting of larger meshes, with wooden posts.

Fig. 406.

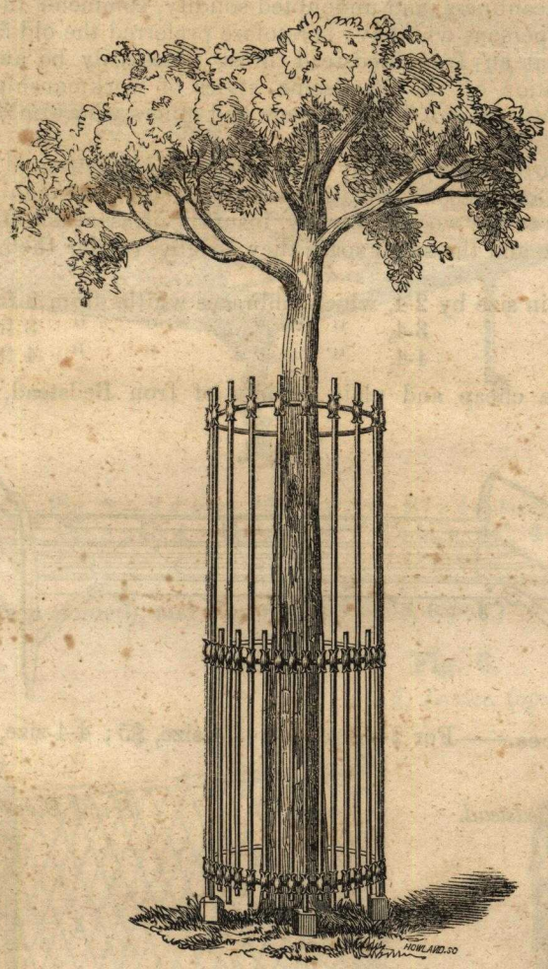


Prices.—Flat iron posts, at - - - - - - - - - - 50 cents each.
Angle iron posts, at - - - - - - - - - - - 62½ " "
Staples, at - - - - - - - - - - - 75 per gross.

CHAPTER XXII.

TREE BOXES.

We make various styles of Tree Boxes, of iron. The one figured in the following illustration is a pattern of the *Composite Tree Box.*



Prices.—From $5.00 to $8.00.

CHAPTER XXIII.

IRON BEDSTEADS.

Mankind not only love good living and the refinements of civilized society, but also the luxuries of repose. Nothing makes one in a better humor with himself and "the rest of mankind" than a comfortable bed and refreshing sleep—to obtain which, the bedstead is an indispensable requisite. The soldier may live through his campaigns, sleeping on the ground, or on a "soft plank" that offers its scanty accommodations for his acceptance; the prisoner in his cell feels thankful for his pallet of straw; and the rover is contented with his blanket; yet it is not probable that either would select these modes in preference to the comforts of more refined life. From the earliest periods men have bestowed much attention on the appliances of the couch and the bed-chamber. We read of bedsteads among the rich

Greeks and Romans "made of ivory, ebony, and rich woods, with inlaid work, and figures in relief." Among the Greeks, there were artisans who excelled in making brazen feet for bedsteads, chairs, &c. In ancient Egypt bedsteads were enclosed in mosquito-nets, supported by wooden posts. The Romans made their bedsteads of silver, of gold with onyx feet, and of iron. One of the latter was found in Pompeii.

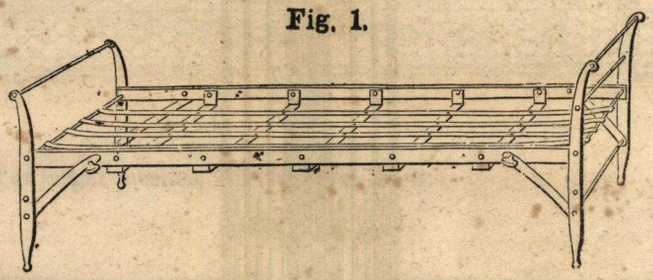
The base and precious metals have thus entered largely into the household fabrics of ancient and modern nations. In the present age, iron has been applied to manifold uses where it was never before thought of, and not the least among these is the IRON BEDSTEAD. We have before in these pages spoken of applications of iron to other important purposes, but their importance does not throw into the shade our present subject. The ease and pliancy of these bedsteads, their great portability, cleanliness, and undoubted solidity, commend them to universal favor, creating for them an immense demand. Many persons who have heretofore preferred the old-fashioned, clumsy, and inconvenient styles, from a mistaken notion that an Iron Bedstead must necessarily be awkward and unsightly, have found their error refuted by an examination of the handsome styles of workmanship illustrated by the plates below. The subject is commended to the attention of housekeepers and others who would make a desirable addition to their summer comforts.

These Bedsteads are manufactured on an entirely new plan, being constructed with joints so as to fold up into a very small compass. They possess one recommendation which should outweigh all others,—they are entirely free from the insect annoyances peculiar to the wooden variety, insuring pleasant slumbers in the sultry nights of summer. Their highly ornamental appearance and the small space they occupy, render them superior to everything heretofore manufactured.

Iron Bedsteads are designated in size by 2-4, which embraces widths from 2 ft. 6 in. to 3 ft.
3-4, " " " " 3 ft. 6 in. to 4 ft.
4-4, " " " " 4 ft. 6 in. to 5 ft.

Fig. 1 is a representation of a cheap and plain variety of Iron Bedstead, suitable for servants' use and for hospitals :

Fig. 1.



Prices.——For 2-4 size, $4 ; 3-4 size, $5 ; 4-4 size, $6.

Fig. 2.
Scroll Folding Bedstead.

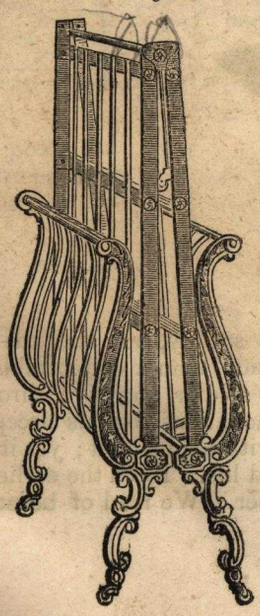


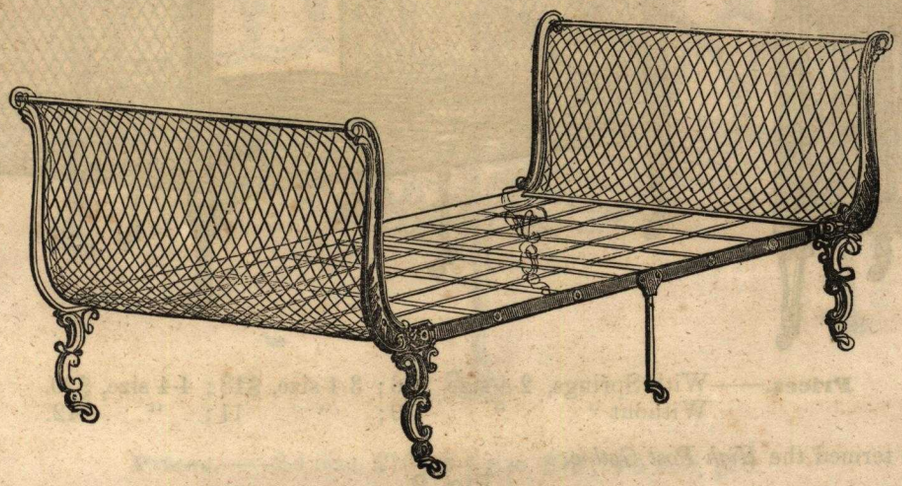
Fig. 3.
Scroll Diamond Bedstead, (folded.)

Fig. 2 (folded) is the *Scroll Folding Bedstead*, and is the style commonly used. It is to be found everywhere. *This pattern and those which follow, are Patented.* It opens like the one shown in Fig. 4.

Fig. 3 (folded) is the *Scroll Diamond Bedstead*, and Fig. 4 (open) is the same pattern opened for use.

Fig. 4.

Scroll Diamond Bedstead, (open.)



Prices.——Fig. 2,—2-4 size, $6 ; 3-4 size, $7 ; 4-4 size, $8.
" 3 and 4,—2-4 size, $7 ; 3-4 size, $8 ; 4-4 size, $9.

Figure 5 is No. 2 Lattice pattern (folded), and Fig. 6 is the same, (open.)

Fig. 5.

No. 2, Lattice, (folded.)

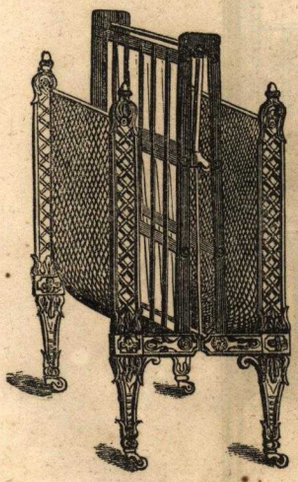
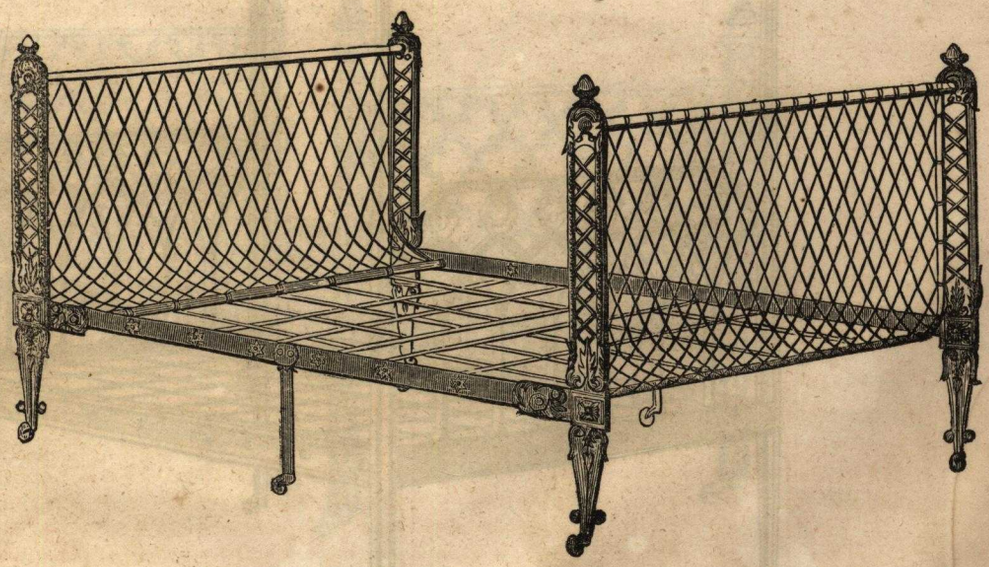


Fig. 6.

No. 2, Lattice, (open.)



Prices.——2-4 size, $7 ; 3-4 size, $8 ; 4-4 size, $9.

Figures 7 and 8 show No. 1 Lattice pattern *with springs*, folded and open. This is a very beautiful pattern, the head and foot higher than is usually the case with folding bedsteads.

Fig. 7.

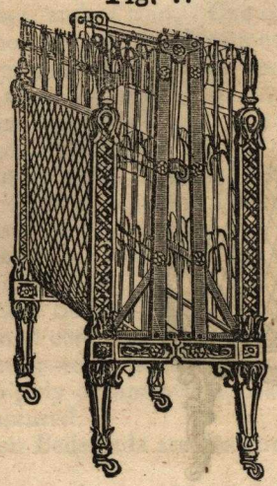
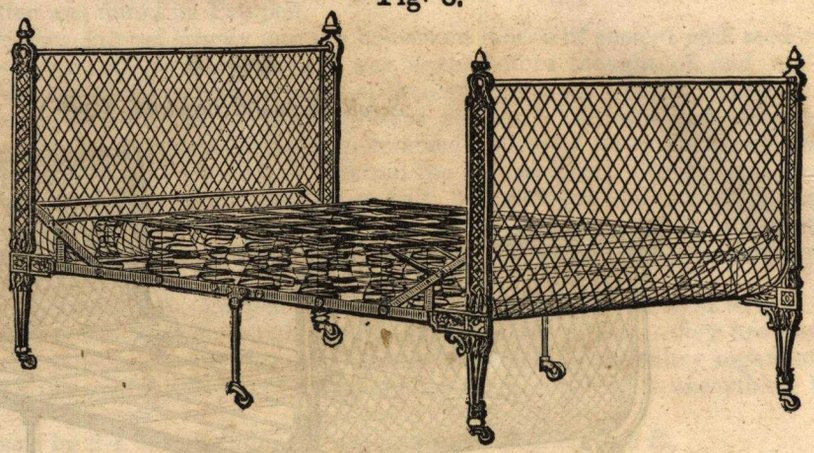


Fig. 8.



Prices.——With Springs, 2-4 size, $16; 3-4 size, $18; 4-4 size, $20.
Without " " 10; " 11; " 12.

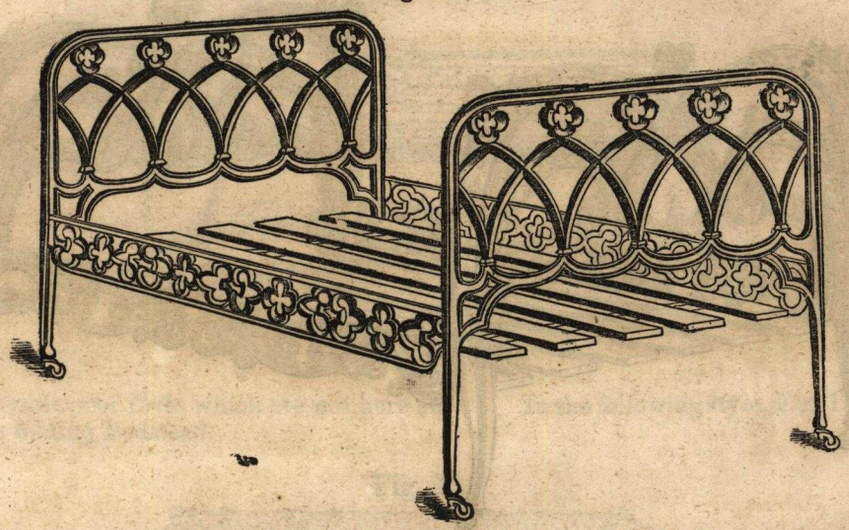
Figure 9 is a style termed the *High Post Gothic.*

Fig. 9.

Price.——4 ft. wide, $18.

Figure 10 shows a style of cast iron Gothic Bedstead, a handsome pattern.

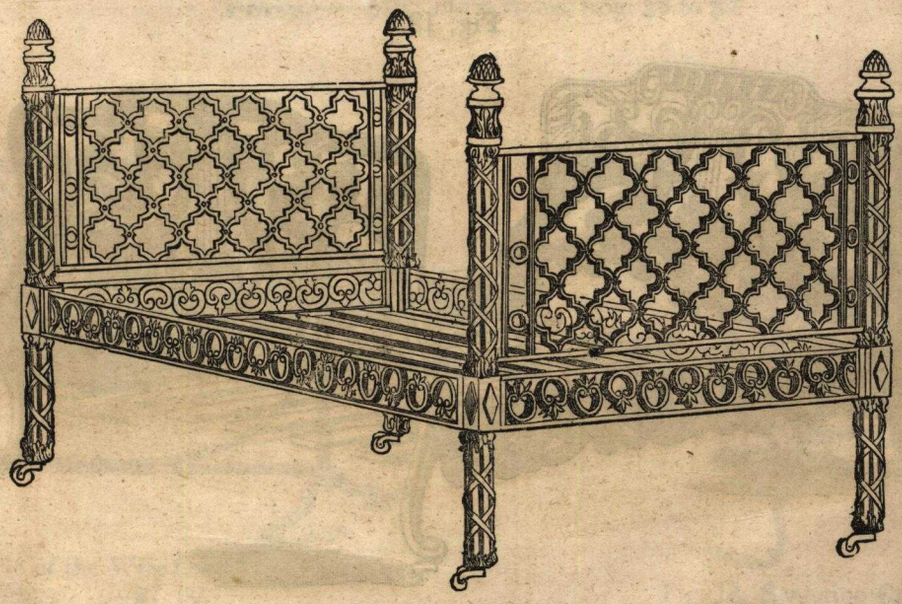
Fig. 10.



Prices.——2-4 size, $10; 3-4 size, $13; 4-4 size, $16.

Figure 11 is the "Union" pattern—a very elegant one.

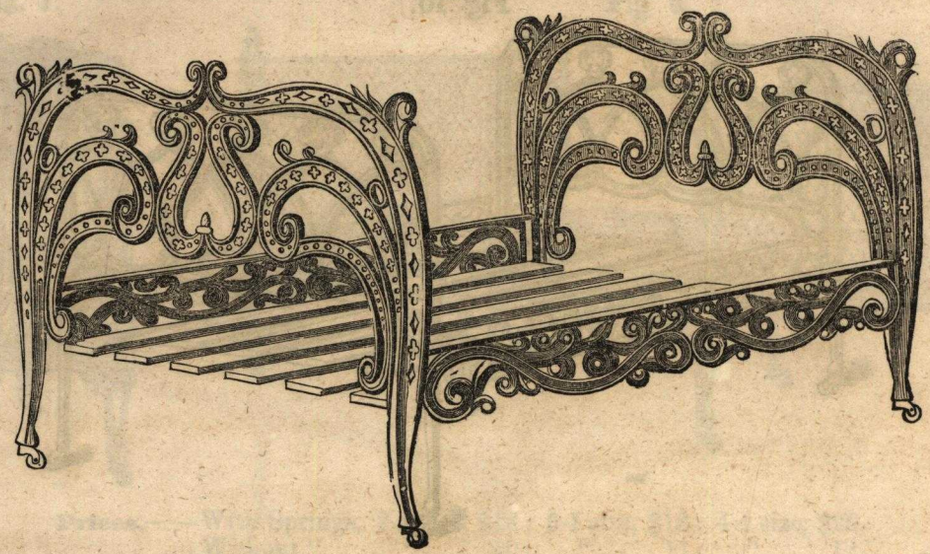
Fig. 11.



Prices.——2-4 size, $14; 3-4 size, $16; 4-4 size, $20.

Figure 12 is the "Lyre" Bedstead, of cast iron.

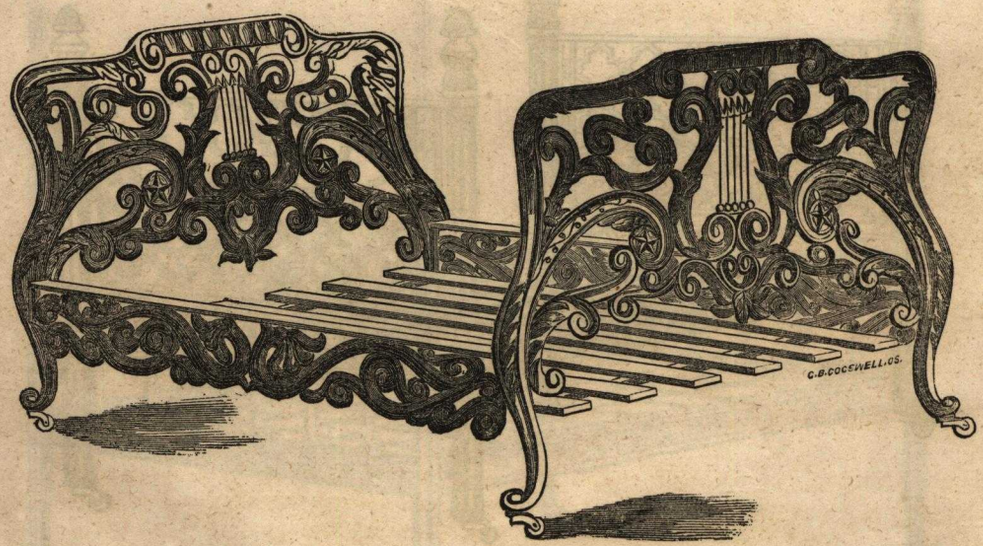
Fig. 12.



Prices.——4 ft. wide, $18.

Figure 13 is the "Harp" Bedstead, also of cast iron. A very beautiful and elaborate design.

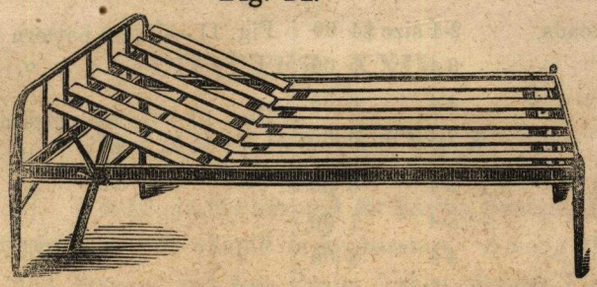
Fig. 13.



Prices.——High foot and head, 4-4 size, $25. Style shown in engraving, 4-4 size, $20.

Fig. 14 is the Hospital and Alms-house Bedstead, with bottom to raise and lower at the head.

Fig. 14.

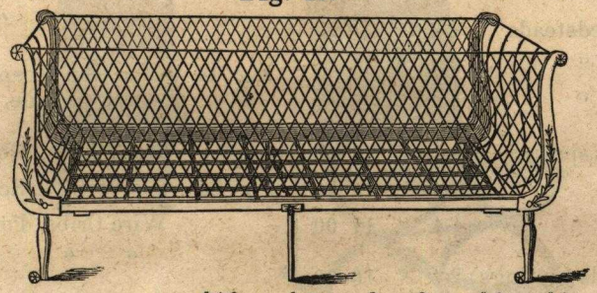


Price——3 ft. wide, $8.

CRIBS.

We make a great variety of *Cribs* which are not here shown. In the following style, Fig. 15, the sides lift out, and the Crib folds like the folding Bedstead.

Fig. 15.



Prices.——$10 ; other styles, from $6 to $9.

Fig. 17.

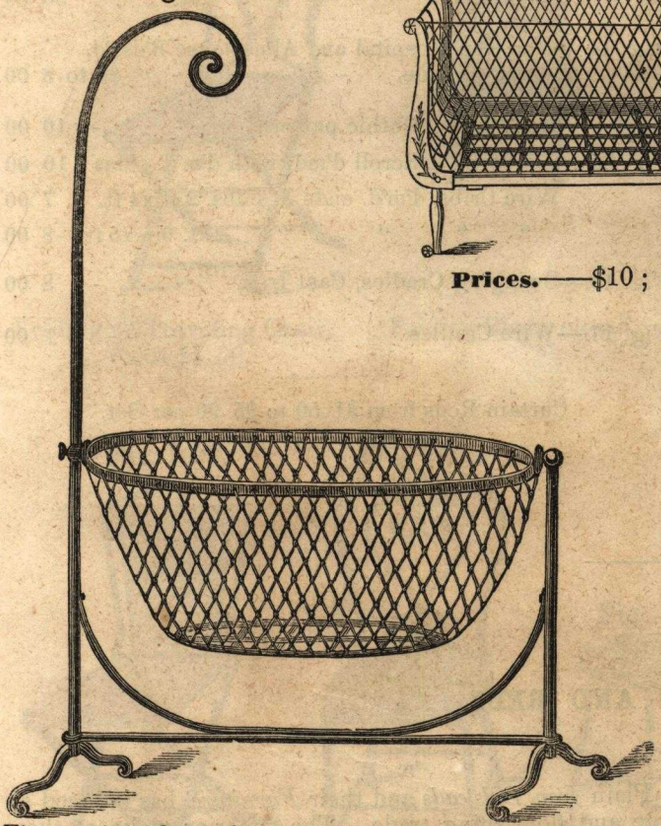


Figure 17 is the style of the Wire Cradle, for swinging. .—$7 00.

Fig. 16.

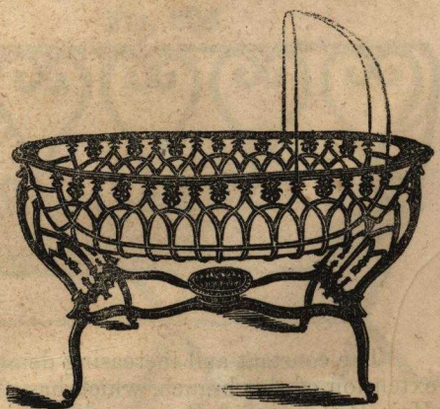


Fig. 16. Swinging Cradle, Gothic pattern.
Prices.——No. 1, small size, $7.
No. 2, large size, $8.

Iron Bedsteads are designated by the following names and sizes, with prices attached. The following is a recapitulation of the foregoing Bedsteads.

Fig. 1.—Plain common Iron Bedsteads,	2-4 size	$4 00
" " " " -	3-4 "	5 00
" " " " -	4-4 "	6 00
2 Tier " " " -	2-4 "	9 00
Fig. 2.—Scroll Folding Bedsteads -	2-4 "	6 00
" " " - -	3-4 "	7 00
" " " - -	4-4 "	8 00
Fig. 4.—Scroll Diamond Folding Bedsteads	2-4 "	7 00
" " " " -	3-4 "	8 00
" " " "	4-4 "	9 00
Fig. 6 —No. 2 Lattice Folding Bedsteads -	2-4 "	7 00
" " " -	3-4 "	8 00
" " " -	4-4 "	9 00
Fig. 8.—No. 1 Lattice Folding Bedsteads	2-4 "	10 00
" " " -	3-4 "	11 00
" " " -	4-4 "	12 00
Scroll D'mond Folding Bedsteads (springs)	2-4 "	13 00
" " " " "	3-4 "	15 00
" " " " "	4-4 "	17 00
Fig. 8.—No. 1 Lattice F'ld'g B'dst'ds (springs)	2-4 "	16 00
" " " " "	3-4 "	18 00
" " " " "	4-4 "	20 00
Fig. 11.—Union pattern Bedstead, 3 ft.	wide,	14 00
" " " 3 ft. 8 in.	"	16 00
Fig. 11.—Union pattern Bedstead, 4 ft. 6 in.	wide,	$18 00
" " " 5 ft. 3 in.	"	20 00
Fig. 10.—Gothic pattern Bedstead, -	2-4 size	10 00
" " Hotel ditto, -	3-4 "	13 00
" " " -	4-4 "	16 00
Fig. 9 —Gothic pattern High-post B'dst'd, 4 ft. wide		18 00
Fig. 12.—Lyre pattern Bedstead, 4 ft. wide, -		18 00
Fig. 13.—Harp pattern Bedstead -	4-4 size	20 00
" " " High end,	"	25 00
Ditto, with springs to suit—extra -		25 00
French Scroll B'dst'ds with sh't-iron ends, 4 ft.	wide	20 00
" " " " " " 4 ft. 6 in.	"	25 00
" " " " " " 5 ft.	"	30 00
Fig. 14.—Cast iron Hospital and Alms-house B'dst'd, 3 ft. wide, - - - -		$6 to 8 00
Iron Cribs, Gothic pattern - -		10 00
Fig. 15.— " Scroll d'md. with d'm'd. sides		10 00
Wire Cribs, d'm'd. ends & sides, 2 ft.x4 ft.		7 00
" " " " 2 ft. 6in.x5 ft.		8 00
Fig. 16.—Swinging Cradles, Cast Iron, - -		8 00
Fig. 17.—Wire Cradles, - - - -		7 00

Curtain Rods from $1 50 to $5 00 per Set.

HAIR MATTRESSES AND BEDS.

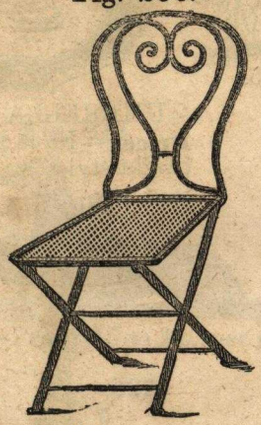
The constant and increasing demand for Ornamental and Plain *Iron Bedsteads* and their *Furniture*, has induced an extension of this branch, which has already grown into a large and flourishing trade. The superior make of these *Hair Mattresses* and *Beds* are their principal recommendation. Orders filled for Steamships, Vessels, Hotels, Private Residences, Asylums, Hospitals, &c., &c., with promptness, and at the lowest market prices.

CHAPTER XXIV.

WIRE FURNITURE.

A NEW article lately introduced. It is admirably adapted for Lawns, Summer Houses, Cottages, Piazzas, &c., &c. This style of Furniture is exceedingly light and unique in appearance. Among the articles manufactured will be found Folding, Hall and Office Chairs, Rocking and Arm Chairs, Tables, Settees, Fire Fenders, &c., &c. A few of the designs are here represented.

Fig. 200.



Folding or Traveling Chair, Price $4 50.

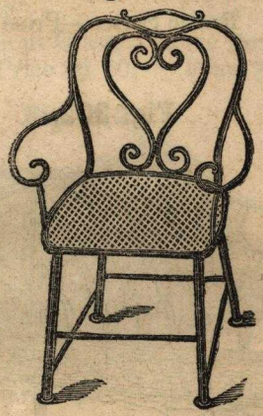
Fig. 200.

Folding Chair, closed.

Fig. 201.

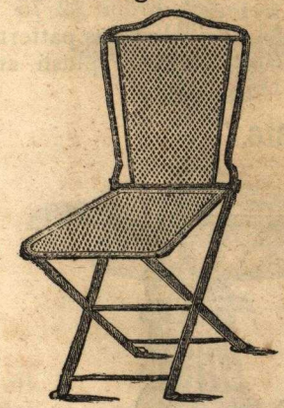
Rocking Chair—Price $10.

Fig. 202.



Arm Chair—Price $8.

Fig. 203.



Folding Chair, Wire back. Price $5.

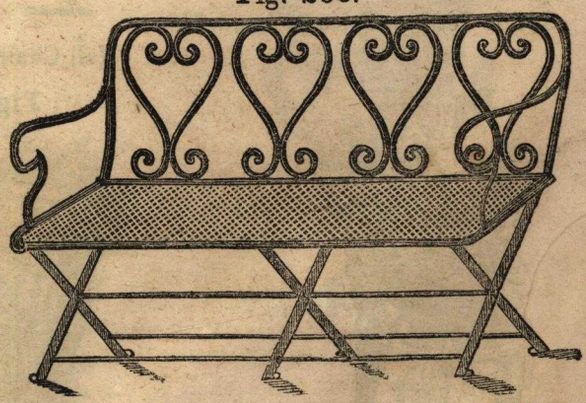
Fig. 204.

Cottage Chair. Price $5.

Fig. 205.

Stool—Price $3 50.

Fig. 206.



Folding or Stationary Settee, for Piazzas, Lawns, &c. Price from $10 to $15.

CHAPTER XXV.

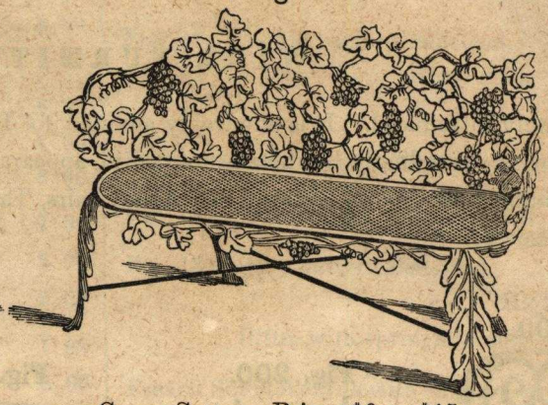
CAST IRON FURNITURE.

STYLES of Cast Iron Chairs, Settees, &c., are made expressly for Gardens, Lawns, Piazzas, Summer Houses, and house purposes. Some of these are shown in the following illustrations:

Fig. 300.

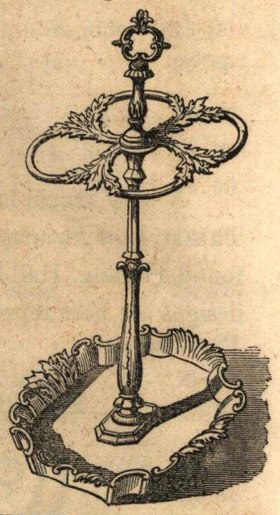
Rustic Settee—Price $10.

Fig. 301.



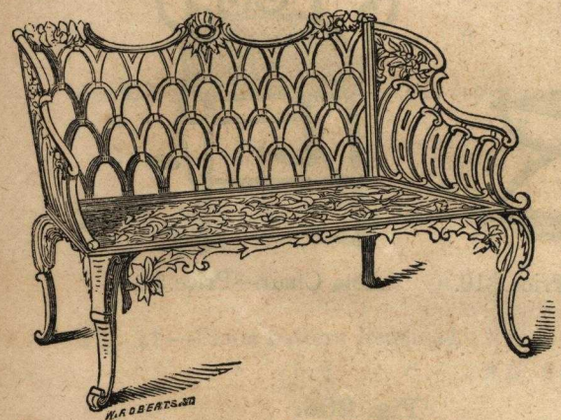
Grape Settee—Prices $9 to $15.

Fig. 317.



UMBRELLA STAND.
Prices.—From $1 50 to $6. (Eight styles are made.)

Fig. 302.



Gothic Settee—Price $17 and $20.

Fig. 303.

Hall Chair—Price $4 50.

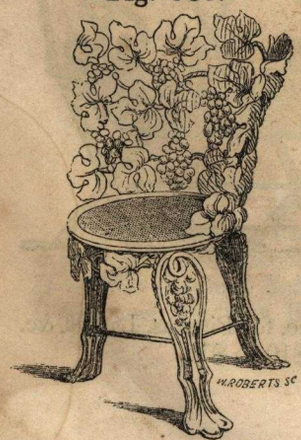
Fig. 304.

Hall Chair—Price $4 50.

Fig. 318.

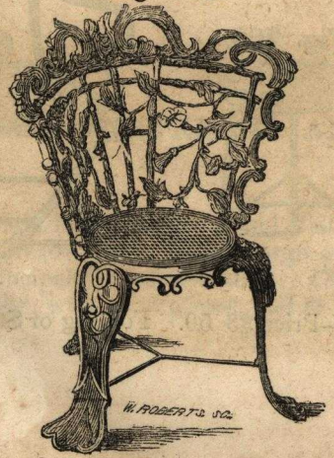
STORE STOOL.
Prices.—From $2 75 to $4 75. (Various patterns, covered with plush and hair cloth.)

Fig. 305.



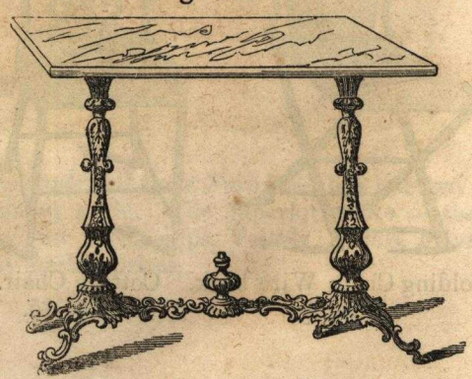
Grape Chair—Price $5.

Fig. 306.



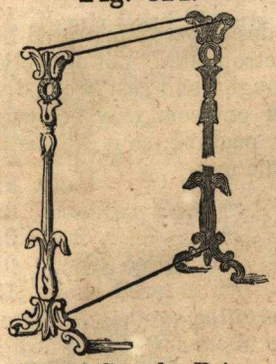
Morning Glory Chair—Price $6.

Fig. 316.



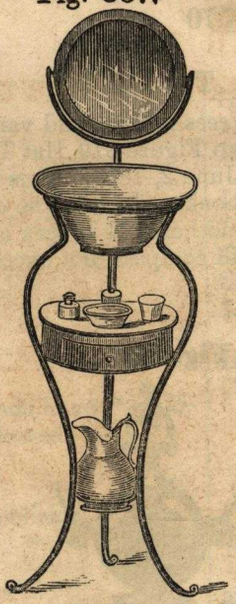
IRON TABLE.—**Prices.**—With Marble top, from $5 to $25.

Fig. 314.



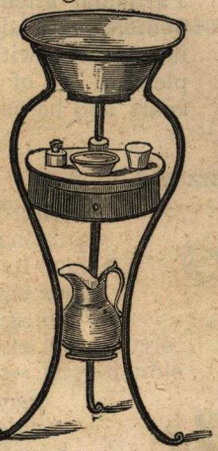
Towel Stand—Price $1 50 each.

Fig. 307.



Iron Washstand, with Glass, including Crockery.—Price $7.

Fig. 308.



Iron Washstand, without Glass, including Crockery—Price $6 50.

Fig 11.

New Design.

Horse Posts—Price $6.

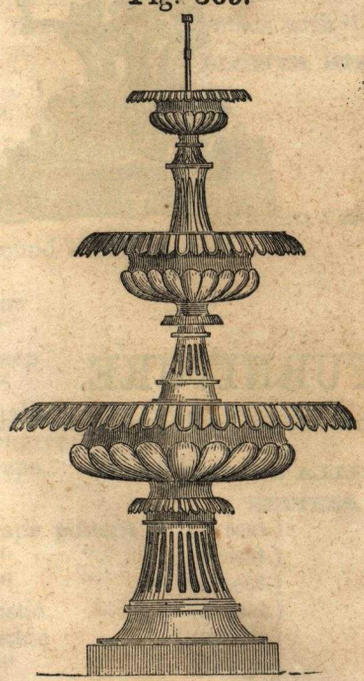
Fig. 313.

Hounds—Price $15 to $40 per pair.

Fig. 312.

Lions—$75 per pair.

Fig. 309.



Fountain—Prices $25 to $40.

Fig. 315.

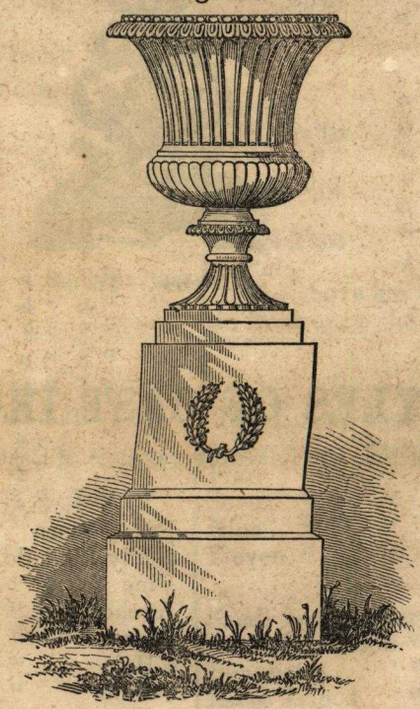


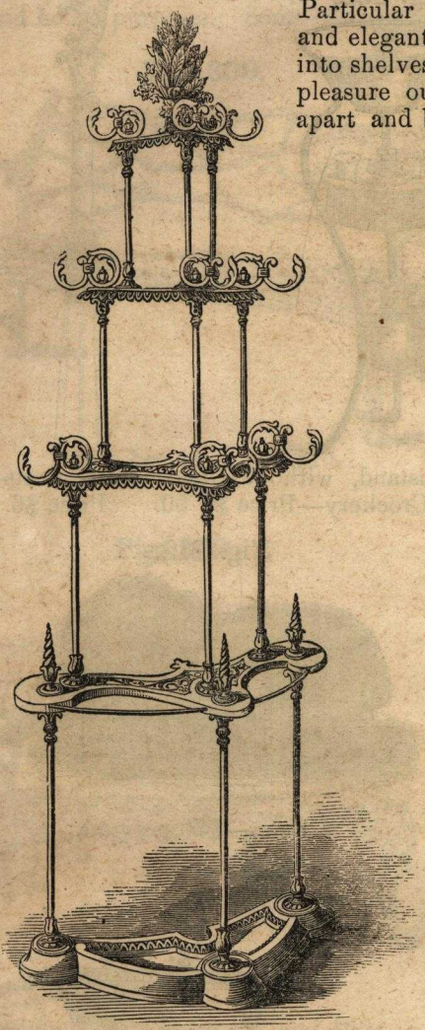
Fig. 310.

Vase.—Price from $5 to $20.

Prices.—Small, fluted, without pedestal, $5 ; medium, without pedestal, $8 ; large , without pedestal, $12. Pedestals—Price from $5 to $5 50 each extra.

HAT TREES.

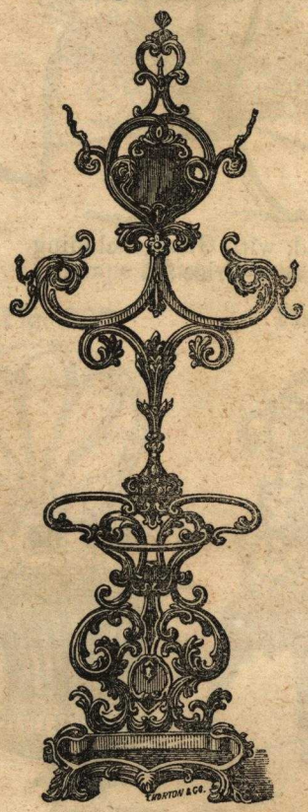
Fig. 319.



The assortment of Hat Trees is large and varied. A few designs are illustrated below. Particular attention is called to Figure 319, Hat Tree, (the "Metropolitan,") of entirely new and elegant design, patented June 2, 1857. It is formed of wrought and cast iron, divided into shelves, with adjustable hooks, which are so contrived that one coat may be swung at pleasure out of the way of another. It is very convenient for packing, as it can be taken apart and be packed in a small compass, not exceeding two cubic feet.

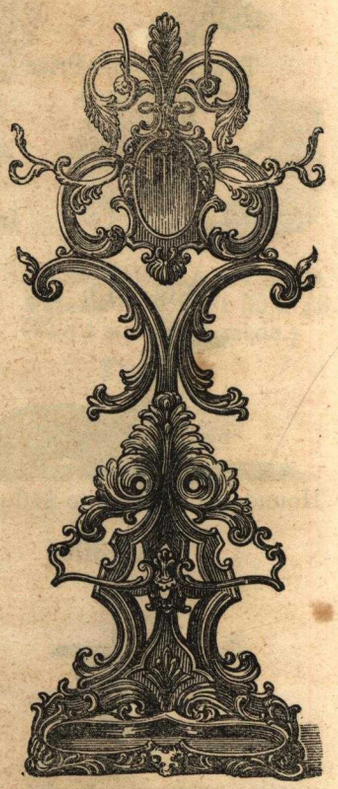
Price.—With Looking-glass, $12.

Fig. 320.



Price.—$6 50.

Fig. 321.



Price.—$12.

DIFFERENT STYLES OF CAST IRON FURNITURE.

In addition to the above we manufacture the following varieties of Cast Iron Furniture, and will supply the Trade at reasonable prices:

HAT RACKS.

No. 1,	Vine Pattern	
" 2,	Scroll "	(Square Glass.)
" 3,	Leaf "	
" 6,	Elizabethian "	
" 7,	Face "	
" 8,	Scroll "	(Oval Glass.)
" 11,	Acorn "	
" 12,	Bouquet "	

UMBRELLA STANDS.

Fox	Pattern	
Jenny Lind	do.	
Vine	"	
Anchor	"	(New.)
Pear	"	"
4-Hole	"	
6-Hole	"	
8-Hole	"	

FIRE STANDARDS.

No. 4, Bear's Head pattern
" 7, Boy and Book "
" 9, Gothic Base "
" 11, Scroll " "
" 12, Vine " "
" 13, Birdnest " "
" 16, Shell " "
" 18, Laughing Face "
" 19, Leaf "
" 20, Tassel Arm "
" 21, Louis Base "

Most of the above patterns of Fire Stands have "*malleable*" iron arms—not made by any other house.

BRONZED FIRE IRONS.

Small, Medium, Large, } Made of malleable iron, with polished Bits and Pans.

ANDIRONS.

Small Scroll pattern
Large " "
Small Jenny Lind "
Large " "
Small Gothic "
Large " "
Small Louis "
Large " "
Dolphin "
Washington "
French "
Bouquet "
Pear "
New "

The above are all made with "wrought iron" Shanks.

BLOWER STANDS.

No. 1 Pattern
" 4 "
" 5 "
Scroll "
Harp "

BRONZED FENDERS.

Round End pattern	4 ft.	2 in. long
" "	4 "	4 " "
Bar "	3 "	7 " "
" "	4 "	4 " "
Deep "	4 "	1 " "
" "	3 "	10 " "
Shallow "	3 "	"
Congress "	4 "	"
Grape "	4 "	2 in. "

SETTEES.

Grape pattern (2 seat.)
" " (3 seat.)
" " (4 seat.)
Rustic (3 seat.)
Gothic (Small.)
" (Large.)

CHAIRS.

Grape pattern
Morning Glory ditto
Hall ditto

SPITTOONS.

Leaf pattern
Louis "
Octagon "
Small Hotel
Large "

TABLE PEDESTALS.

Lamp or Bust Stand
Coalbrook, Small single
" Small double
" Large single
" Large double
" Extra large single
" Extra large double
Elizabethian single
" double
New pattern, Round
" " Oval
Harp "

BRACKETS.

No. 0, Ivy pattern	$3\frac{1}{4}$ in.	x	$5\frac{1}{2}$ in.
" 1, " "	$4\frac{1}{2}$ "	x	$6\frac{1}{4}$ "
" 2, " "	$5\frac{3}{4}$ "	x	$6\frac{1}{2}$ "
" 3, " "	$5\frac{3}{4}$ "	x	$8\frac{1}{2}$ "
" 4, " "	$8\frac{1}{4}$ "	x	$8\frac{3}{4}$ "
" 5, " "	9 "	x	$8\frac{3}{4}$ "
Small Rustic "	$8\frac{1}{4}$ "	x	$11\frac{3}{4}$ "
" Crane "	$8\frac{1}{2}$ "	x	$8\frac{1}{2}$ "
" Bird "	10 "	x	14 "
" " "	12 "	x	16 "
Leaf "	$10\frac{3}{4}$ "	x	$11\frac{1}{2}$ "
" "	$15\frac{1}{4}$ "	x	$11\frac{1}{4}$ "
Lattice "	$12\frac{1}{2}$ "	x	$14\frac{1}{2}$ "
" Taller "	$13\frac{3}{4}$ "	x	$11\frac{1}{2}$ "
" " "	14 "	x	13 "
Large Bird "	$14\frac{1}{2}$ "	x	14 "
Vine "	$16\frac{3}{4}$ "	x	$14\frac{1}{2}$ "
Large Face "	$14\frac{1}{2}$ "	x	18 "
Scroll "	24 "	x	19 "

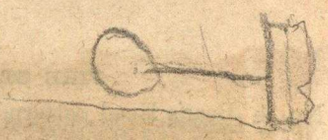
The above are made with or without Flanges to screw in front or on the sides.

FLOWER STANDS.

Three pans, Plain pattern
" " Fancy "
Five " " "
Seven " " "
Nine " " "
Eleven " " "

BOUQUET STANDS,

Small Louis pattern
" Coalbrook "
Bouquet "
Large Tripod "



CHAPTER XXVI.

CAST IRON FRONTS.

FOR BUILDINGS, CAPS, LINTELS, CORNICES, TRUSS GIRDERS, COLUMNS, AND BRACKETS.

WROUGHT IRON DOORS, SHUTTERS, AND ALL WROUGHT AND CAST IRON WORK FOR BUILDING PURPOSES.

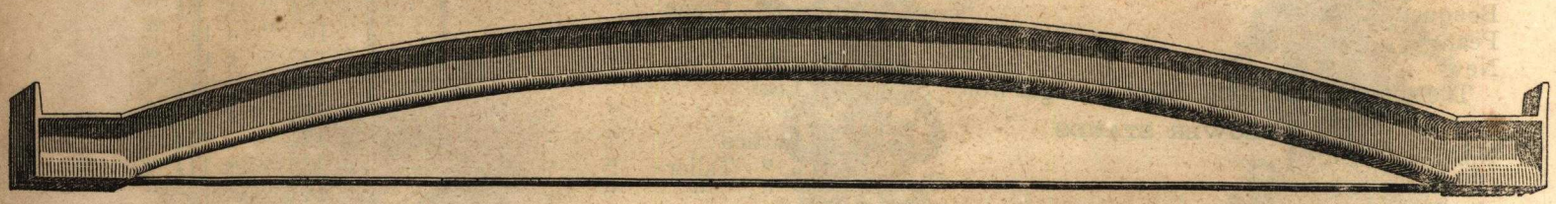
Builders, and those designing to build, are respectfully invited to examine the designs of Iron Work for Buildings. The more ready adaptation of Iron Work to any style of Architecture, and its superiority in point of strength and cheapness, have in a great measure superseded the use of Brown Stone.

The increasing demand, more particularly for WINDOW LINTELS AND SILLS, has induced the manufacturers to get up an additional number of NEW PATTERNS of different styles, the cost of which are about

ONE-THIRD THE PRICE OF BROWN STONE,

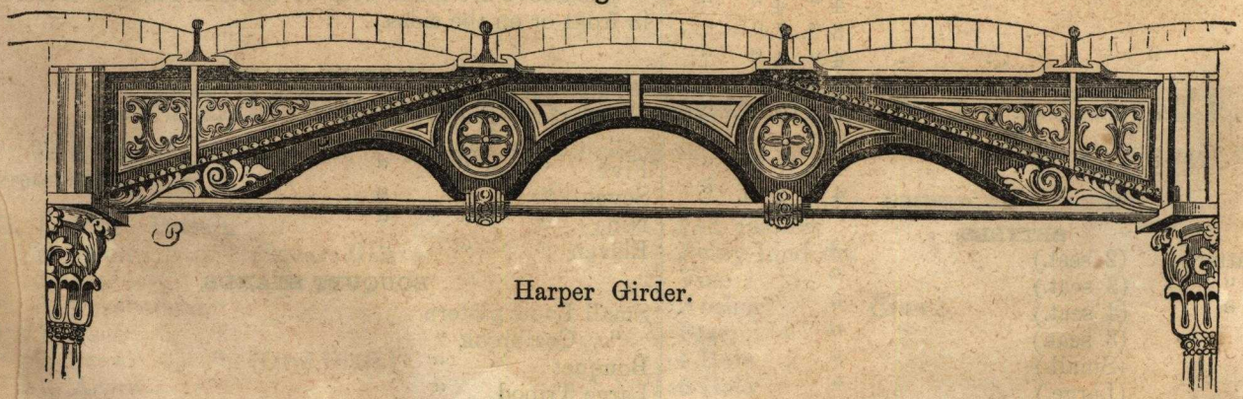
cut in the same manner.

Fig. 500.



Truss Girder, with Rod.

Fig. 539.



Harper Girder.

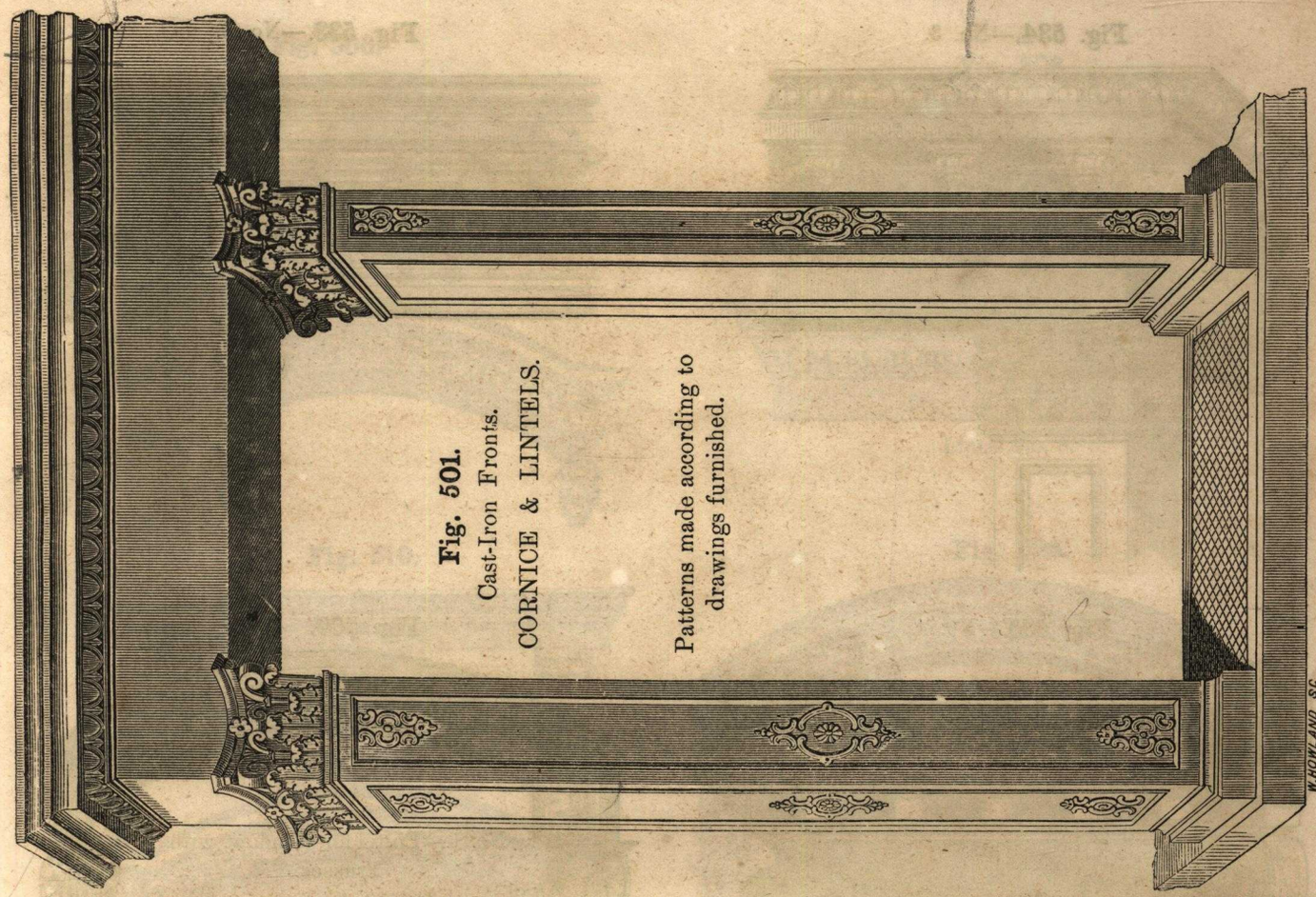


Fig. 501.
Cast-Iron Fronts.
CORNICE & LINTELS.

Patterns made according to drawings furnished.

W. HOWLAND SC

Fig. 522.

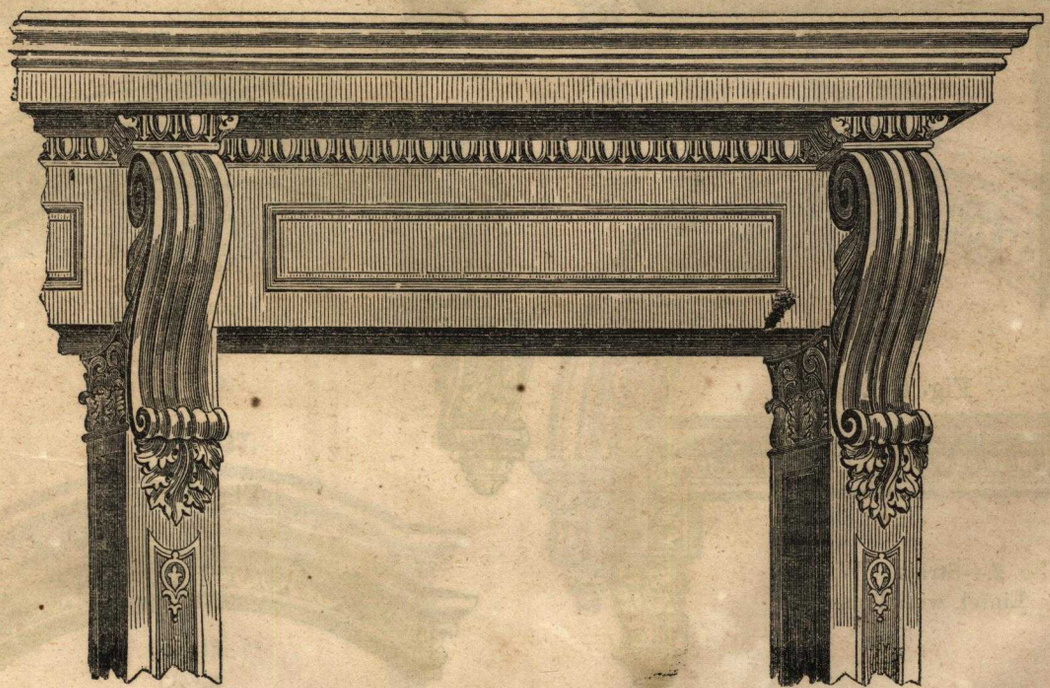


Fig. 534.—No. 3.

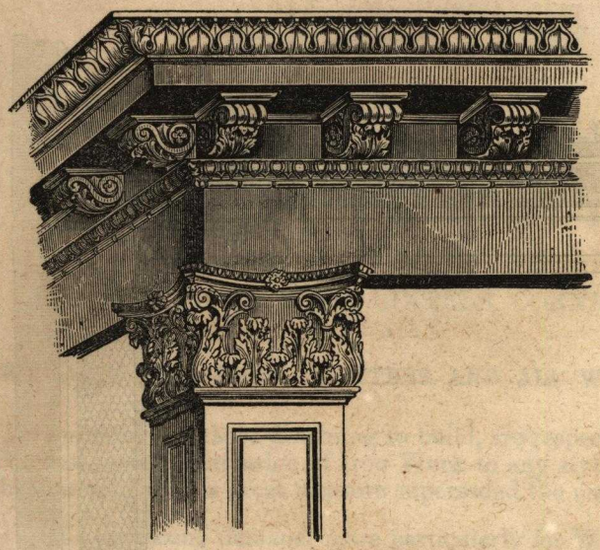


Fig. 533.—No. 2.

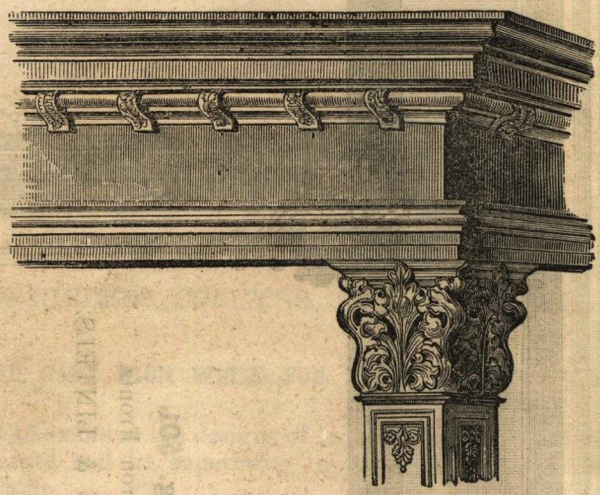


Fig. 535.—No. 4.

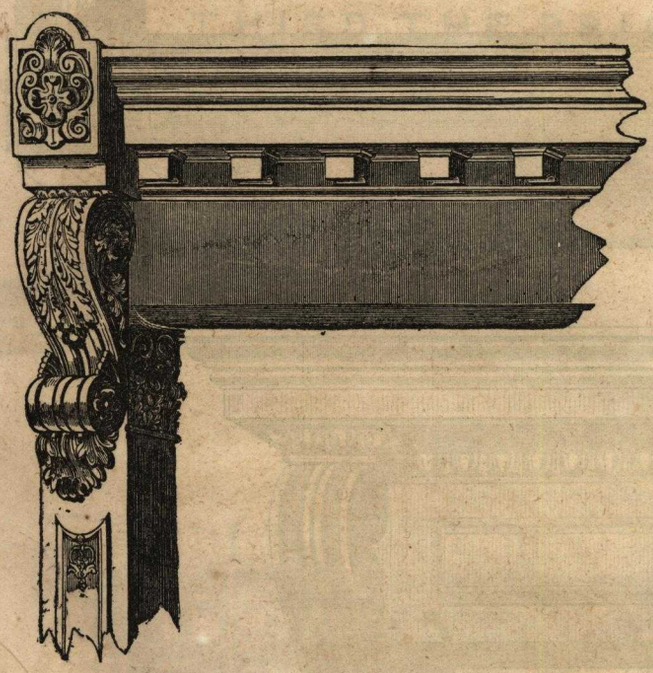
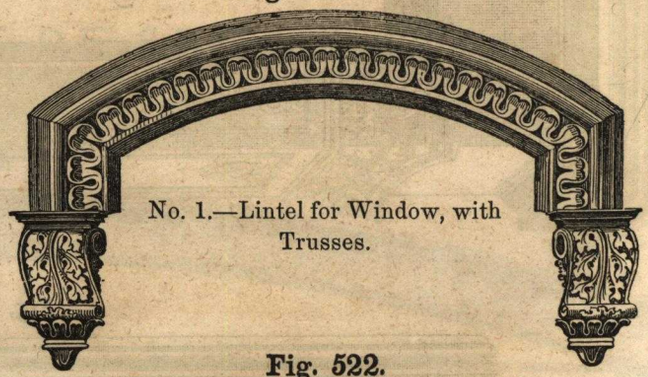
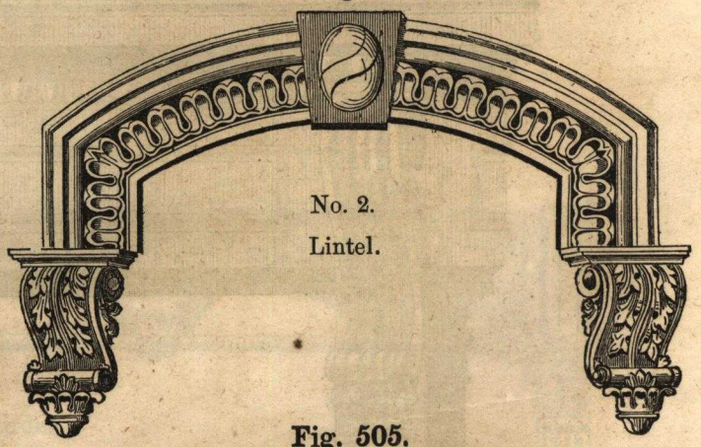


Fig. 507.



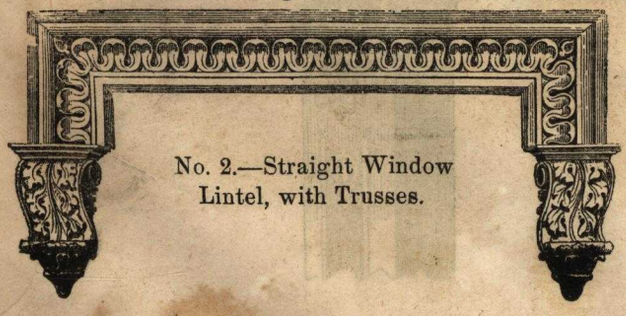
No. 1.—Lintel for Window, with Trusses.

Fig. 522.



No. 2.
Lintel.

Fig. 521.

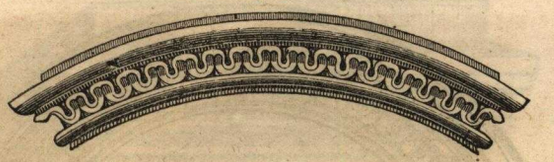


No. 2.—Straight Window Lintel, with Trusses.

Fig. 505.

Lintel No. 5.

Fig. 506.



No. 4.

Fig. 523.—No. 6.

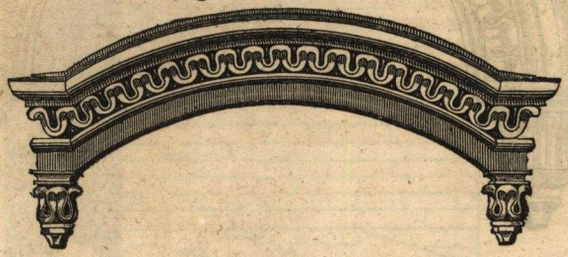
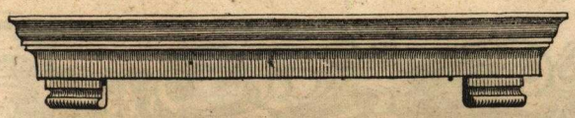
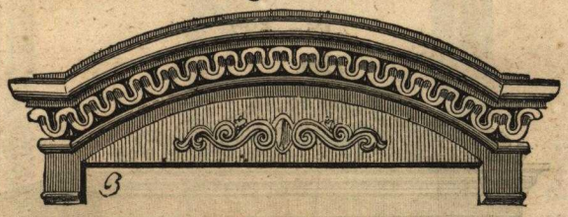


Fig. 510.



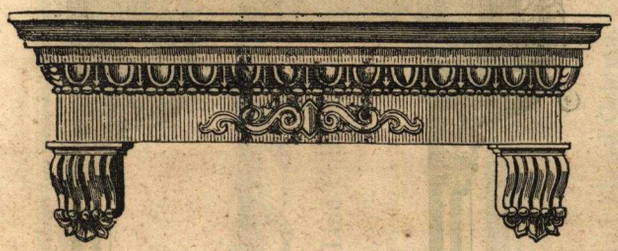
Sill, with Corbels.

Fig. 525.



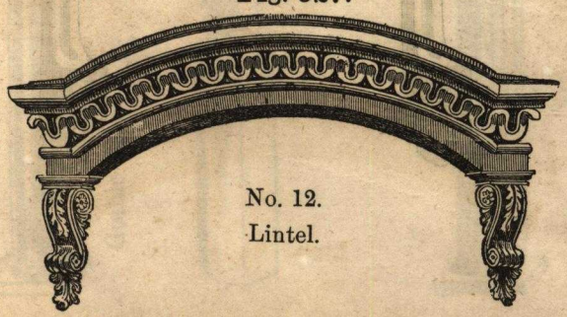
No. 10.

Fig. 524.



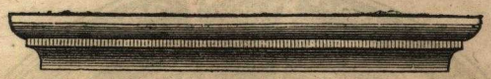
No. 9.

Fig. 527.



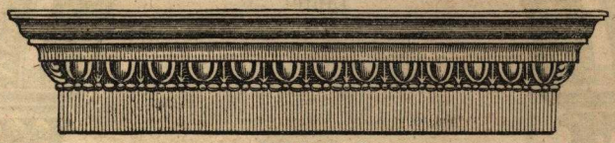
No. 12.
Lintel.

Fig. 508.



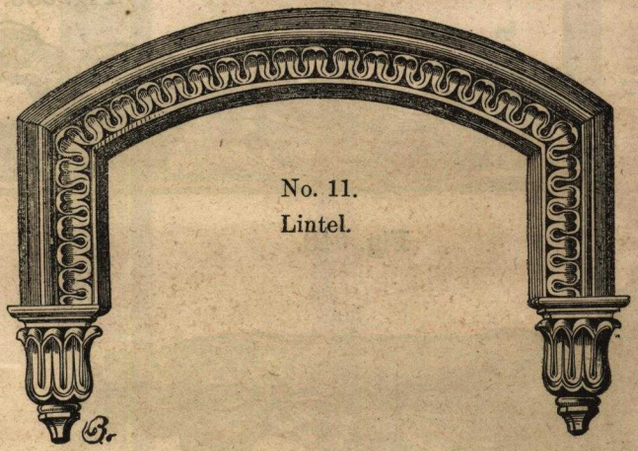
Lintel No. 7.

Fig. 509.



Lintel No. 8.

Fig. 526.



No. 11.
Lintel.

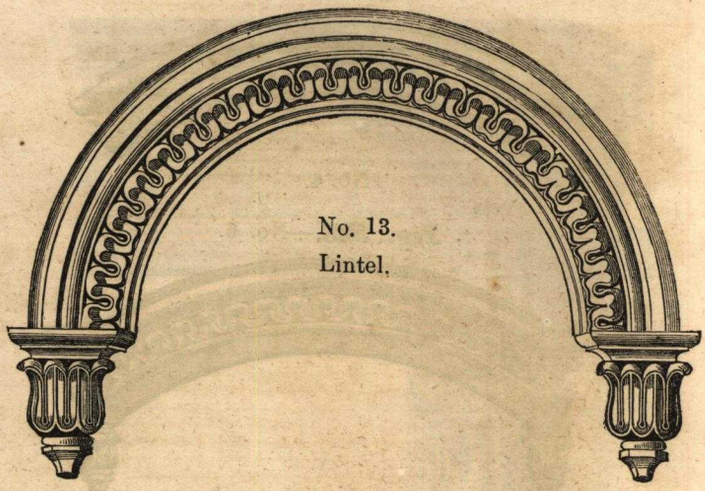
Fig. 529.

No. 14.
Lintel.

Fig. 531.

No. 16.
Lintel.

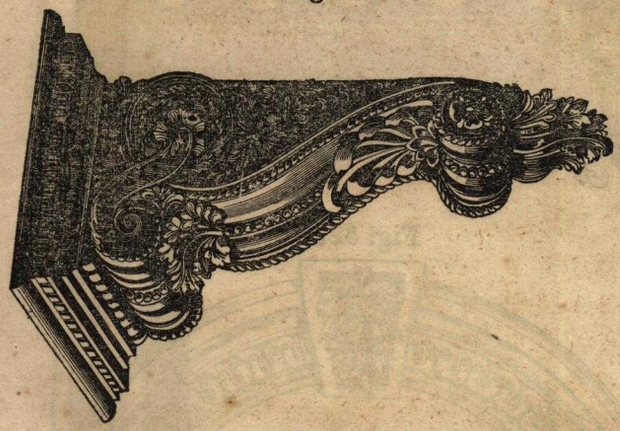
Fig. 528.



No. 13.
Lintel.

Fig. 530.—No. 15.

Fig. 540.



E. 1.

Fig. 541.

E. 2.

Fig. 537.

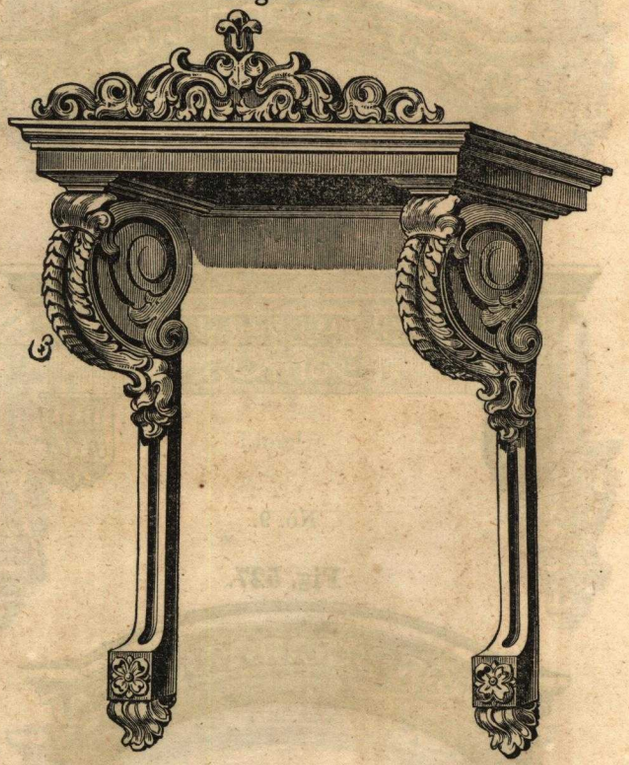
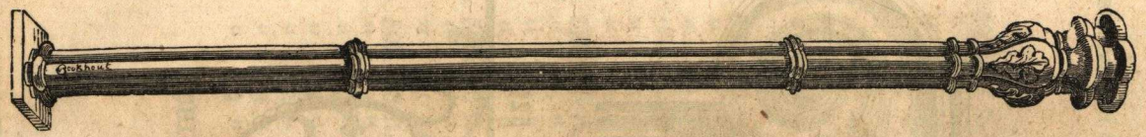


Fig. 542.

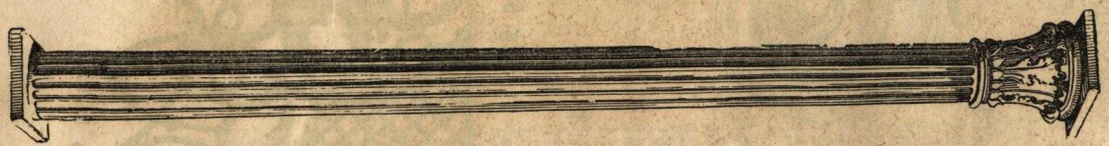


Gothic Column.

Fig. 502.

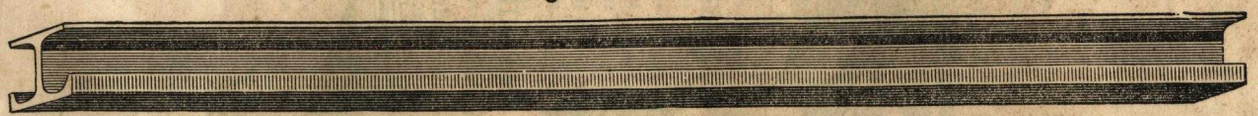
Jenny Lind Column, Metropolitan Hotel, N. Y.

Fig. 504.



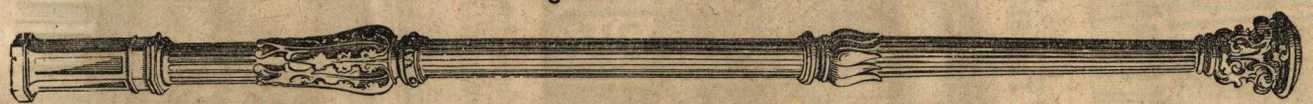
Round Fluted Column, Cap and Brace.

Fig. 511.



Straight Girder.

Fig. 503.



Fancy Column.

Fig. 512.

Dolphin Leader.

Fig. 513.

Plain Fluted Gutter Leader.

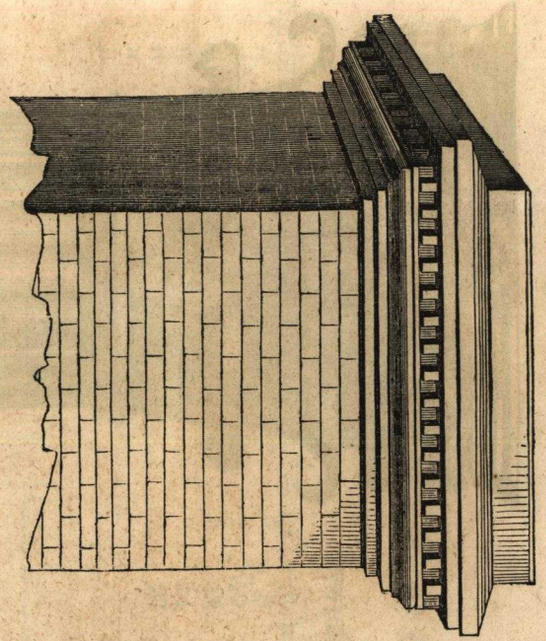
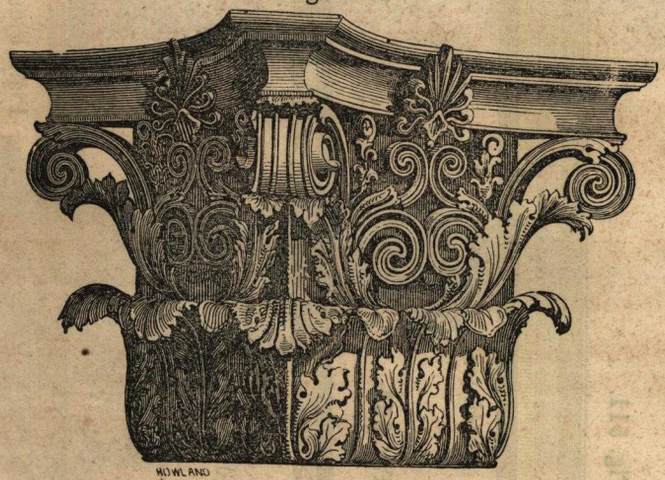


Fig. 536.—Chimney Top.

Fig. 514.

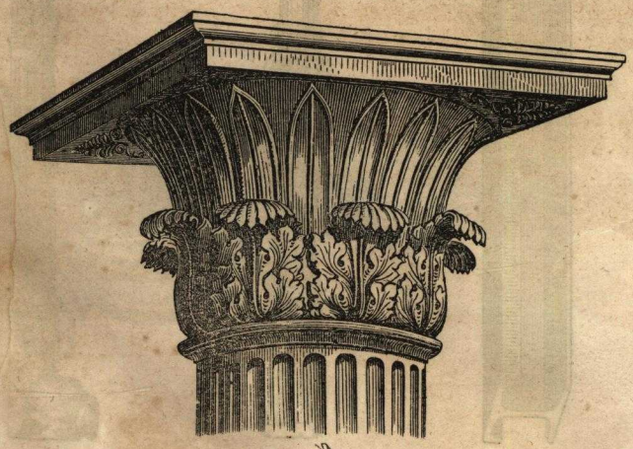
CORREGIO CAPITALS.—Made for the Saint Charles Hotel, New Orleans. 46 inches diameter.—Round.

Fig. 515.



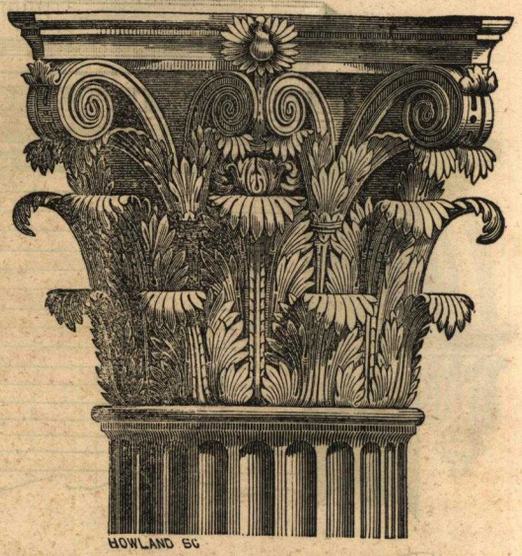
CORREGIO CAPITALS, square, made for St. Charles Hotel,

Fig. 517. TOWER OF THE WIND.



6 to 27 inches in diameter.

Fig. 516.



CORINTHIAN CAPITALS—from 8 to 18 in. diameter.

Fig. 518.

IONIC CAPITALS,

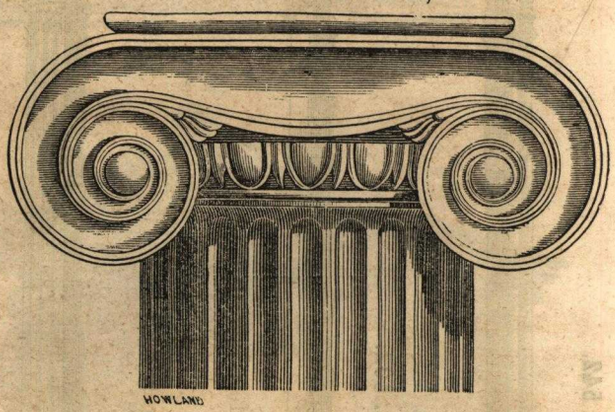


Fig. 519.

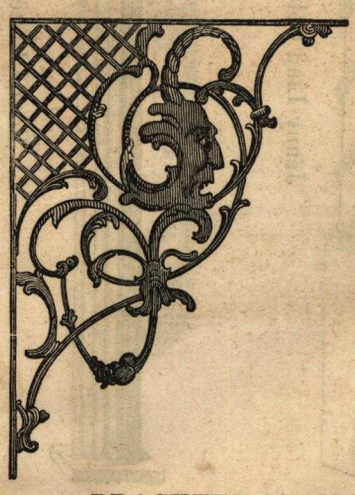
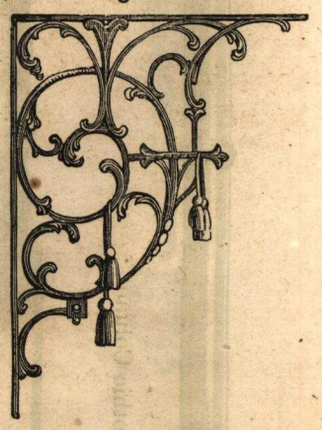


Fig. 520.



BRACKETS OF ALL DESCRIPTIONS.

PRICES OF CAPITALS.

CORINTHIAN.		TOWER OF WIND.		IONIC.	
Fig. 516.—8 inch at neck	$8 00	No. 517.—6 inch at neck,	$3 00	No. 518.—8 inch at neck,	$4 50
" 10 "	12 00	" 8 "	4 00	" 10 "	5 50
" 12 "	16 00	" 10 "	5 50	" 12 "	8 50
" 14 "	23 00	" 12 "	7 50	" 14 "	10 60
" 16 "	30 00	" 14 "	10 50	" 24 "	25 00
" 18 "	45 00	" 27 "	35 00	" 27 "	35 00
" 20 "	65 00			" 32 "	50 00
" 24 "	100 00			" 42 "	125 00

PRICES OF LINTELS AND SILLS.

No. 507.—3 ft. 2 in. opening	$12 50
" 3 " 6 " "	13 00
" 3 " 8 " "	13 25
" 4 " "	13 75
" 4 " 3 " "	14 00
" 4 " 5 " "	14 25
" 4 "10 " "	15 00
" 5 " "	15 25
" 5 " 2 " "	
No. 521.—3 ft. 6 in. opening	$12 00
" 3 " 8 " "	13 25
" 4 " "	13 75
" 4 " 2 " "	14 00
" 4 "10 " "	15 00
" 6 " "	17 00
No. 522.—3 ft. 8 in. opening	$14 00
" 5 " "	16 00
" 5 " 6 " "	16 50
" 6 " "	17 00
No. 506.—3 ft. 2 in. opening	$4 50
" 4 " "	5 50
" 4 " 3 " "	6 00
No. 505.—3 ft. 0 in. opening	$4 25
" 3 " 2 " "	4 50
" 3 " 4 " "	4 75
" 3 " 6 " "	5 00
" 3 " 7½ " "	5 12
" 3 " 9 " "	5 25
" 4 " "	5 50
No. 505.—4 ft. 4 in. opening	6 00
No. 523.—3 ft. 6 in. opening	$8 00
" 3 " 7½ " "	8 25
No. 509.—3 ft. 7 in. opening	$5 12
" 3 " 8 " "	5 50
No. 524.—3 ft. 6 in. opening	$8 00
" 3 " 7½ " "	8 25
" 3 " 9 " "	8 50
No. 525.—2 ft. 10 in. opening	$4 50
" 3 " "	4 75
No. 526.—3 ft. 2 in. opening	$12 00
" 3 " 6 " "	12 50
" 3 " 8 " "	12 75
" 4 " "	13 00
" 4 " 3 " "	14 00
" 4 " 4 " "	14 25
" 4 "10 " "	15 00
" 5 " " "	15 25
No. 527.—3 ft. 6 in. opening	$11 00
" 4 " "	11 75
No. 528.—3 ft. 6 in. opening	$12 00
No. 529.—3 ft. 6 in. opening	$13 50
" 3 " 9 " "	13 75
" 4 " "	14 00
No. 530.—4 ft. opening	$8 50
No. 531.—3 ft. 6 in. opening	$14 00
" 3 " 9 " "	14 25
" 4 " "	14 50

CHIMNEY TOPS, $1 62 per running foot.

SILLS, 4 ft. opening, and under, $4 each.

CHAPTER XXVII.

COAL AND ORE SCREENS.

THE wear and tear of cast iron when used for screening Ore or Coal is too well known to require comment. The remarkable extensile power of wrought iron—eighteen tons per square inch, or nearly treble that of cast iron—admirably fits it for the screening of heavy masses of Coal or Ore, the wires bending and shaping themselves anew under the most sudden concussions, without any disturbance of the meshes of the screen. Besides this great power of resisting extension, it is ascertained by conclusive experiment that wrought iron will wear for a longer period under these circumstances than cast iron. There is a total absence of the cutting and rasping which so soon proves destructive to the old patterns.

Ore Screens of wrought iron have been made of the length of twenty-five feet, and even more, and have worked admirably; proving an additional saving in cost and bulk. They are now used for the screening of Anthracite Coal throughout the Coal region of Pennsylvania, and have been productive of substantial profit and economy. They are also in use in all the principal coal yards of Boston, New York and Philadelphia. The process of their manufacture is similar to that of the Railing, the wires being made of any desired size, from $\frac{1}{8}$ inch to 1 inch in diameter; shaped, crimped and interwoven in a very secure and expeditious manner. For parties engaged in mining operations in any part of the country, or in foreign countries, there is nothing so well adapted; while they are comparatively light and easy of transportation.

CHAPTER XXVIII.

WHERE OUR MANUFACTURES HAVE BEEN USED.

Crystal Palace.—The massive IRON RAILING enclosing the outside of the Crystal Palace at New York, including GATEWAYS, POSTS, FOUNDATION, &c.; also all the INSIDE RAILINGS enclosing the Galleries, together with the STAIRS, NEWELS, STANDARDS, and OUTSIDE BALCONY RAILINGS.

Corporation of the City of Savannah, Ga.—FORSYTH PLACE (a Park of ten acres), MONUMENT SQUARE and the CITY HOSPITAL; also Churches, Public Buildings, Private Residences and Cemeteries; and throughout the State of Georgia.

Corporation of the City of Charleston, S. C.—The BATTERY, AIKEN SQUARE, FLYNN'S CHURCH, ORPHAN'S HOUSE; also CIRCULAR CHURCH, CHURCH OF THE HOLY COMMUNION; and also many of the most prominent Buildings in the State of South Carolina.

Corporation of the City of Natchez, Miss.—NATCHEZ INSTITUTE, &c., &c.

Corporation of the City of New York.—RECEIVER OF TAXES, MAYOR'S OFFICE, POST OFFICE, COMMISSIONERS OF EMIGRATION, BOARD OF EDUCATION, &c., &c.

Corporation of the City of Brooklyn, L. I.—COMPTROLLER'S OFFICE, MAYOR'S OFFICE, &c., &c.

Corporation of the Village of Glenn Falls, N.Y.

President's Grounds at Washington, D. C.

City Market, Mobile, Ala.; MONTGOMERY MILLS, Montgomery, Ala.

City Infirmary, Cincinnati, Ohio.

House of Refuge, Philadelphia, Pa.

" " **Baltimore, Md.**

School of Moral Reform, near **Boston, Mass.**

Sisters of Charity, Mount St. Vincent, Convent of Sacred Heart, Home for the Friendless, St. Mary's Seminary, Children's Nursery, &c., &c.

Banks, N. Y. City.—Broadway Bank ; Bank of North America ; Hanover Bank ; Atlantic Bank ; Importers' and Traders' Bank; Park Bank ; Pacific Bank ; Metropolitan Bank ; Bank of New York ; Bank of the State of New York ; Greenwich Bank ; Bank for Savings ; and Duncan & Sherman's Bank, &c., &c.

Banks, Brooklyn, L. I., &c.—City Bank ; Brooklyn Savings Bank ; Central Bank ; South Brooklyn Savings Bank ; Bank of Jersey City ; Hudson County Bank, New York ; Hoboken City Bank ; Westchester County Savings Bank ; Bank of Watertown, Wisconsin ; Union Bank, Monticello, New York ; Fairfield County Bank, Norwalk, Connecticut ; Bank of Westfield, Chatauque County, New York ; Bank of Washington, District of Columbia ; Bank of Columbus, Savannah, Georgia ; Maine Bank, Columbus, Georgia ; Waterbury Bank ; Pequonnock Bank ; State Bank, Cleveland, Ohio ; Manufacturers' and Traders' Bank, Buffalo, New York ; Pahquioque Bank ; Athens Bank, Georgia ; Commercial Bank, Racine, Wisconsin ; Banks at Macon, Georgia ; Hollister Bank of Buffalo ; City Bank, Buffalo ; Western Bank, Lockport ; Bank of Charleston, South Carolina ; Bank of Sing Sing, New York, &c., &c.

Insurance Companies, New York City, &c.—Washington ; United States ; Columbia ; Hanover ; Monarch ; Park ; Great Western ; Eagle ; Greenfield Insurance Company, Greenfield, Massachusetts ; Relief, New York, &c., &c.

Government Hospital for the Insane, Washington, D. C. ; Bloomingdale Asylum ; State Lunatic Asylum, Utica, New York ; Retreat for the Insane, Hartford, Connecticut ; Flatbush Asylum ; Kings County Lunatic Asylum ; America Asylum, Hartford, Connecticut, &c. &c.

Hotels, New York City, &c.—St. Nicholas ; Metropolitan ; Prescott House ; Lafarge ; Haight House, Elmira ; Galena Hotel, Galena ; Greenwich Hotel, New York ; Hotel St. Germain, New York ; Milledgeville Hotel, Georgia ; St. Charles Hotel, New Orleans, &c., &c.

Theatres, New York City, &c.—Niblo's ; Broadway ; Laura Keene's ; St. Charles ; National Theatre ; Boston, &c.

Adams & Co.'s Express ; United States Express Company ; New York and Erie Express Office ; Wells, Fargo & Co.'s Express ; American Express Company ; Spaulding's Express ; Augusta and Waynesboro Railroad Company ; New York and Erie Railroad ; New Jersey Railroad and Transportation Company ; Milwaukee and Mississippi Railroad Company ; New York Central Railroad ; Michigan Southern and Northern Indiana Railroad, &c., &c.

Mechanics' Library ; Dusseldorf Gallery ; Polytechnic Institute, Brooklyn ; Mechanics' and Traders' Exchange, New York ; Union Telegraph Company ; New York Herald ; Tribune ; Times ; Courier and Enquirer ; Evening Post ; Sunday Atlas ; Porter's Spirit of the Times ; Brooklyn Times Office ; Harpers' New Building ; Bowen & McNamee's New Building ; Metropolitan Mills ; Manhattan Gaslight Company ; Georgia Female College, &c., &c.

Steamships.—Pacific ; Arctic ; Atlantic ; Golden Gate ; Black Warrior ; Golden Age ; Florida ; Augusta ; Ericsson ; Yankee Blade ; Arago ; Fulton ; Adriatic ; Yang Tzse ; Prometheus ; Star of the West ; Northern Light, &c., &c.

Steamboats.—Elm City and Francis Skiddy ; City of Buffalo ; Buffalo ; New York ; Belleville ; Columbia ; New World, &c.

Novelty Iron Works, New York ; Morgan Iron Works, New York ; Belleville Iron Works, New Orleans, &c., &c.

Cemeteries.—Greenwood ; Cypress Hills ; Evergreens ; New York Bay ; Calvary ; St. Peters ; Perth Amboy ; Cemetery at Rome, New York ; Erie, Pennsylvania ; Chicago, Illinois ; Congressional Grounds, Washington, District of Columbia ; Mount Auburn, Boston ; Laurel Hill, Philadelphia ; Greenmount ; Baltimore Cemetery ; Charleston, South Carolina, and Savannah, Georgia ; and generally throughout all the Cemeteries in the United States.

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MANUFACTURED BY
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SUCCESSORS TO BACON & RAVEN,

No. 135 GRAND ST., One Block East of Broadway, NEW YORK.

Nos.	Oct's.	DESCRIPTION OF PIANOS, IN ROSEWOOD.	Price.
1	6 1/3	**Small Round Pattern.** *Front Corners small round; serpentine legs. Length of front 6 feet 1; width 2 feet 11. Scale of keys* **F** *to* **A.** *Action, French Grand,* . .	Dolls. **235**
2	6 7/8	**Small Round Pattern.** *Front corners small round; serpentine legs; scroll fret music desk. Length of front 6 feet 5; width 3 feet. Scale of keys* **C** *to* **A.** *Action, French Grand,*	**275**
3	6 7/8	**Large Round Pattern.** *Front corners large round; extra serpentine legs; scroll fret music desk. Length of front 6 feet 5; width 3 feet 2. Scale of keys* **C** *to* **A.** *Action, French Grand,*	**300**
4	6 7/8	**Large Round Pattern Moulding.** *Front corners large round; rich moulding on rim; extra serpentine legs, scroll fret music desk. Length of front 6 feet 5; width 3 feet 2. Scale of Keys* **C** *to* **A.** *Action, French Grand,*	**320**
5	6 7/8	**All Round Pattern.** *Front and back corners large round; back polished; scroll fret music desk; veneered scroll legs. Length of front 6 feet 5; width 3 feet 3. Scale of keys* **C** *to* **A.** *Action, French Grand,*	**340**
6	7	**Large Round Pattern.** *Front corners large round; richly cut music desk; extra serpentine legs. Length of front 6 feet 8; width 3 feet 2. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**350**
7	7	**Large Round Pattern Moulding.** *Front corners large round; rich ogee moulding on rim; richly cut music desk; extra serpentine legs. Length of front 6 feet 8; width 3 feet 3. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**375**
8	7	**All Round Pattern.** *Front and back corners large round; back polished; rich carved legs and lyre. Length of front 6 feet 8; width 3 feet 3. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**400**
9	7	**All Round Pattern Moulding.** *Front and back corners large round; rich ogee moulding on rim; back polished; carved legs and lyre; elegant music desk. Length of front 6 feet 8; width 3 feet 4. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**450**
10	7	**Louis Quatorze Pattern.** *Front and back corners large round; rich ogee and waving mouldings on plinth and rim; back polished; carved legs and lyre; elegant music desk. Length of front 6 feet 8; width 3 feet 4. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**475**
11	7	**Louis Quinze Pattern Serpentine.** *Elegant serpentine case; front and back corners large round; rich ogee moulding on rim; back polished; fine carved legs and lyre; carving on plinth; elegantly cut music desk. Length 6 feet 10; width 3 feet 6. Scale of keys* **A** *to* **A.** *Action, French Grand,*	**500**

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Having furnished the following, among a multitude of other persons, with Instruments, we refer with confidence to them, for their Tone, Quality, and Durability in all climates:

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BOWEN, McNAMEE & CO. do
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